

1914

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BULLETIN
OF
WASHINGTON UNIVERSITY
ST. LOUIS



CATALOGUE
OF THE
MEDICAL SCHOOL

APRIL, 1914

PUBLICATIONS OF WASHINGTON UNIVERSITY
SERIES II VOLUME XII NUMBER VI

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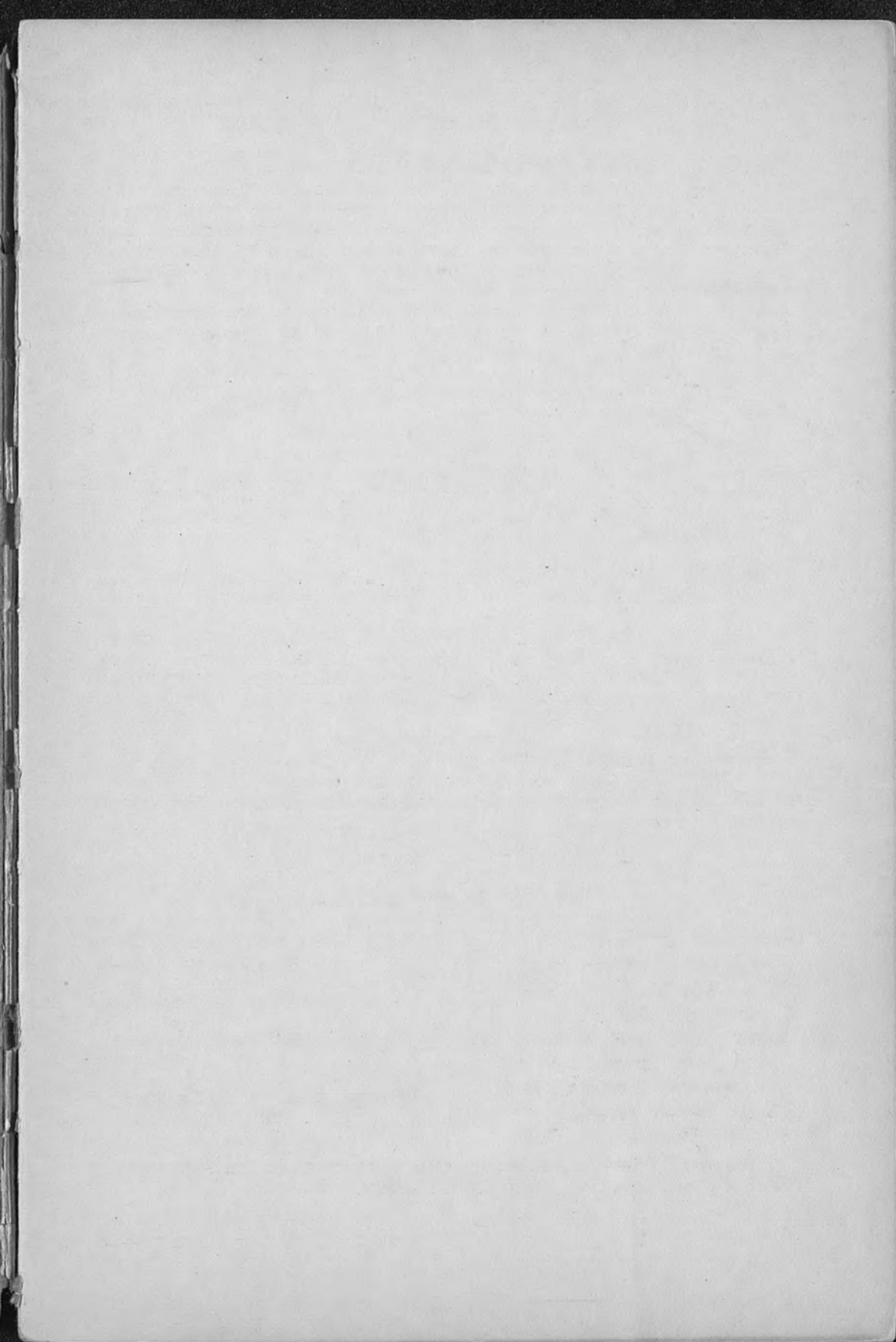
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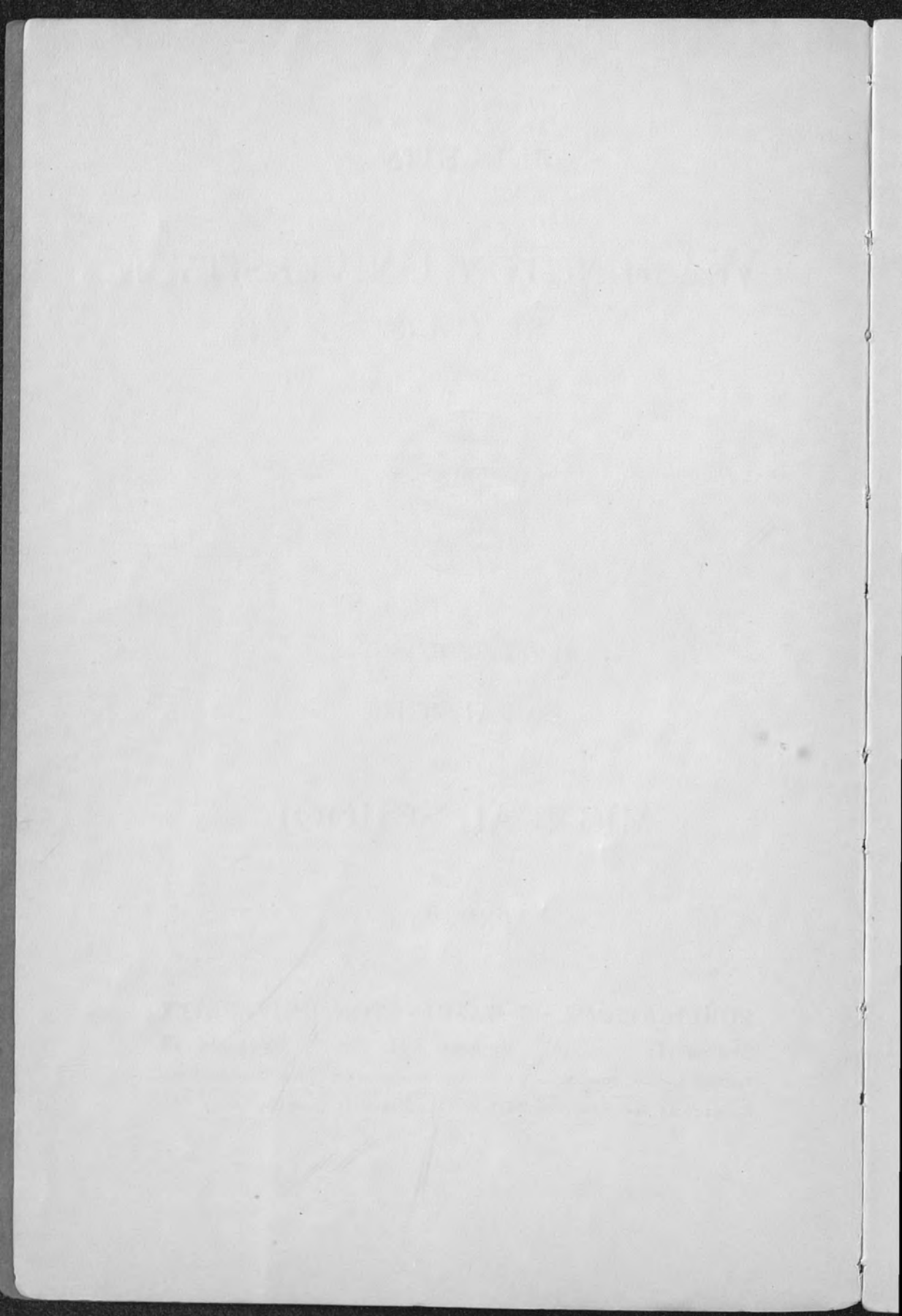
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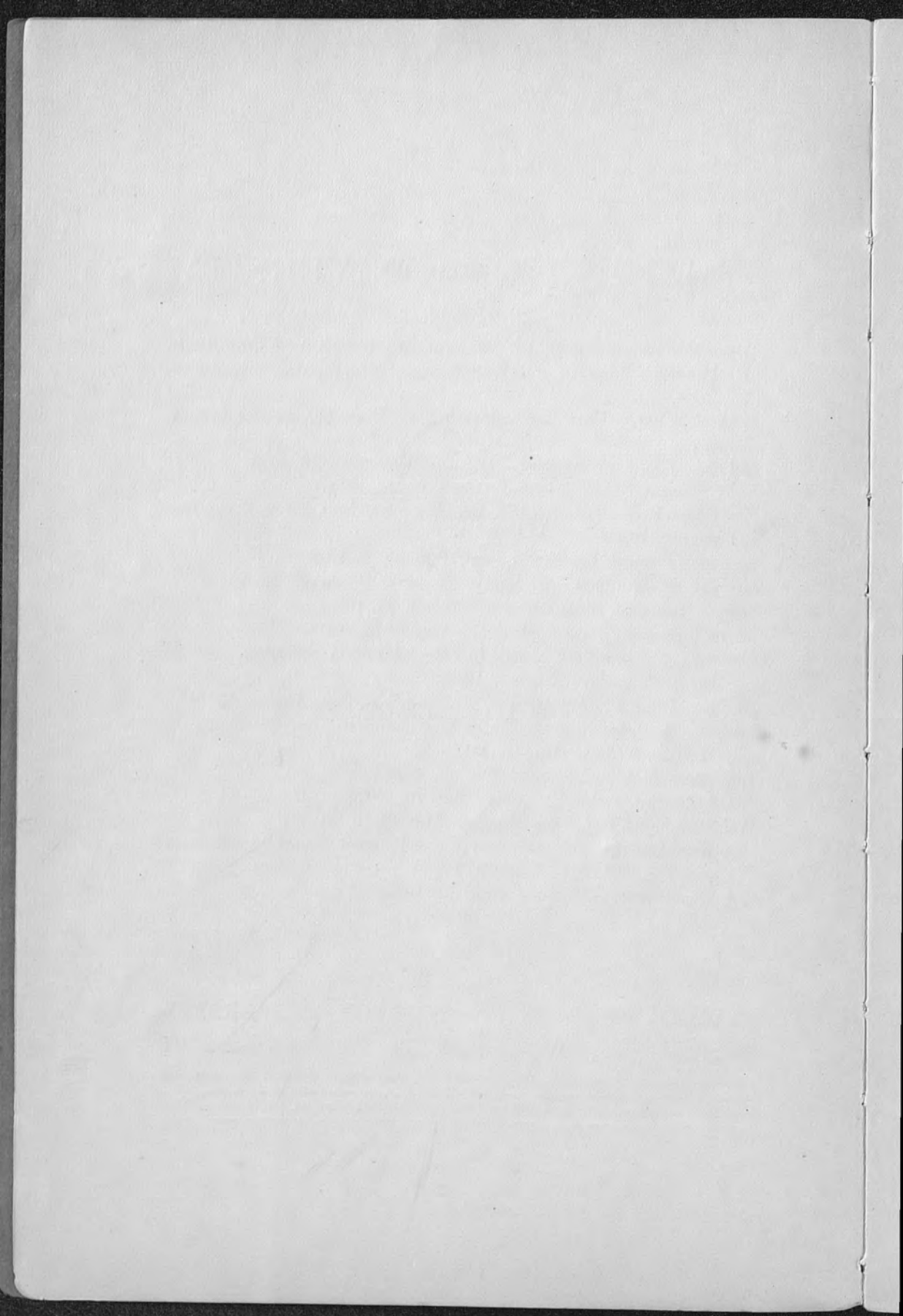
TWENTY-FIFTH ANNUAL
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APRIL, 1914

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SERIES II VOLUME XII NUMBER VI

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CALENDAR

1914-15

Examinations for Advanced Standing and Removal of Conditions,
Monday, Tuesday and Wednesday, September 21, 22, and 23,
1914.

Academic Year (First Trimester) begins Thursday, September 24,
1914.

Holiday, Thanksgiving Day, Thursday, November 26, 1914.

First Trimester ends Tuesday, December 22, 1914.

Christmas Recess, Wednesday, December 23, 1914, to Sunday, Jan-
uary 3, 1915.

Second Trimester begins Monday, January 4, 1915.

Holiday, Washington's Birthday, Monday, February 22, 1915.

Second Trimester ends Saturday, March 13, 1915.

Third Trimester begins Monday, March 15, 1915.

Last day for receiving essays for the Alumni Association Prize in
1915, Thursday, April 1, 1915.

Holiday, Good Friday, April 2, 1915 and Saturday, April 3, 1915.

Last day for receiving applications of candidates for the degree of
M.D., Saturday, May 1, 1915.

University Holiday, Friday, May 14, 1915.

Third Trimester ends Saturday, May 29, 1915.

Final Examinations begin Monday, May 31, 1915.

Examinations for Entrance and for Advanced Standing, Monday
and Tuesday, June 7 and 8, 1915.

Commencement, Thursday, June 10, 1915.

CALENDAR

1913

SEPTEMBER.							OCTOBER.							NOVEMBER.							DECEMBER.						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	1	2	3	4	5	6	..	..	1	2	3	4	..	..	1	2	3	4	5	6	..	1	2	3	4	5	6
7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8	7	8	9	10	11	12	13
14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15	14	15	16	17	18	19	20
21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22	21	22	23	24	25	26	27
28	29	30	26	27	28	29	30	31	..	23	24	25	26	27	28	29	28	29	30	31
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1914

JANUARY.							FEBRUARY.							MARCH.							APRIL.						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
..	1	2	3	..	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4
4	5	6	7	8	9	10	8	9	10	11	12	13	14	8	9	10	11	12	13	14	5	6	7	8	9	10	11
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SEPTEMBER.							OCTOBER.							NOVEMBER.							DECEMBER.						
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27	28	29	30	25	26	27	28	29	30	31	29	30	27	28	29	30	31
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1915

JANUARY.							FEBRUARY.							MARCH.							APRIL.						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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MAY.							JUNE.							JULY.							AUGUST.						
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Medical School, Galveston, 1888-91; Physician to University Hospital, Ann Arbor, 1891-1908; Professor of Medicine, University of Michigan, 1891-1908; Physician to Charity Hospital, New Orleans, 1908-10; Professor of Medicine, Tulane University, 1908-10; Acting Assistant Surgeon, U.S.A., 1898; Dean of the Medical Faculty, 1910-12; Co-editor, Archives of Internal Medicine. Physician in Chief to the Washington University Hospital.

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M.D., St. Louis Medical College, 1888; Interne, St. Louis City Hospital, 1888-92; Instructor in Urinology and in Clinical Medicine, 1891-98, and Lecturer on Laryngology, St. Louis Medical College, 1898-99 and Medical Department of Washington University, 1899-1905; Member of Staff of St. Luke's Hospital and Barnard Free Skin and Cancer Hospital. Assistant Surgeon and Chief of the Laryngological Clinic, St. Louis Children's Hospital and Chief of the Laryngological Clinic, O'Fallon Dispensary.

3542 Washington Avenue

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M.D., University of New York, 1891; Interne, New York Skin and Cancer Hospital and Gouverneur Hospital, New York, 1891-93; Assistant to Skin Department, Demilt Dispensary, New York, 1894, and Vanderbilt Clinic, New York, 1894; Lecturer on Dermatology, New York Post Graduate Medical School, 1894; Lecturer on Dermatology, St. Louis University, 1910-12; Chairman of the Executive Committee of the Medical Board, Barnard Free Skin and Cancer Hospital, 1905-13; Member of the Hospital Board, City of St. Louis, 1912. Chief of the Out Patient Dermatological Clinic, Washington University Hospital.

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3635 Cleveland Avenue

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S.B., Lawrence College, 1894; Ph.D., University of Chicago, 1900; M.D., Rush Medical College, 1909; University Extension Instructor in Zoölogy, University of Chicago, 1894-96; Instructor in Science, Aurora High School; Instructor in Comparative Physiology, Marine Biological Laboratory, 1899-1913; Fellow and Assistant in Physiology, University of Chicago, 1898-1900; Professor of Physiology and Pharmacology, Cooper Medical College, 1900-1910; Investigator, United States Bureau of Fisheries, 1911.

4347 Forest Park Boulevard

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A.B., Johns Hopkins University, 1899 and M.D., 1903; Assistant Demonstrator of Anatomy, Cornell University, Ithaca, New York, 1903-04; Resident Pathologist and Resident Physician, Pennsylvania Hospital, 1904-08; Director of the Pathological Laboratory, Presbyterian Hospital, Philadelphia, 1909-10; Resident Physician and Associate in Medicine, Hospital of the Rockefeller Institute, New York, 1910-13. Associate Physician to Washington University Hospital and Chief of the Medical Out Patient Clinic, Washington University Hospital.

4914 Forest Park Boulevard

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M.D., Washington University Medical Department, 1892; Interne, St. Louis City Hospital, 1892-95; Superintendent and Surgeon in Charge, Female Hospital, St. Louis, 1895-99; Member and Chairman of the Gynecological Staff of the St. Louis City Hospital, 1910; Gynecologist, St. Luke's Hospital, St. Louis Mullanphy Hospital, Missouri Baptist Sanitarium, and Bethesda Hospital. Associate Gynecologist to Washington University Hospital.

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Metropolitan Building

HARRY MCCRINDELL JOHNSON, M.D.* *Associate in Genito-Urinary Surgery*

M.D., Tulane University, 1890; Associate in Genito-Urinary Surgery, St. Louis Mullanphy Hospital. Chief of the Clinic for Genito-Urinary Surgery, O'Fallon Dispensary.

Wall Building

VILRAY P. BLAIR, M.D......*Associate in Surgery*

A.M., Christian Brothers College, 1890; M.D., Medical Department of Washington University, 1893; Interne, St. Louis Mullanphy Hospital, 1893-95; formerly Surgeon to St. Louis City Hospital and City Sanitarium, Instructor in Practical Anatomy, Associate Professor of Anatomy and Clinical Professor of Surgery, Medical Department of Washington University, 1894-1912; Visiting Surgeon to St. Luke's Hospital and St. Louis Maternity Hospital; Consulting Surgeon, St. Louis Eye, Ear, Nose and Throat Infirmary. Assistant Surgeon to St. Louis Children's Hospital and Washington University Hospital.

Metropolitan Building

ALBERT E. TAUSSIG, M.D......*Associate in Medicine*

A.B., Harvard University, 1891; M.D., St. Louis Medical College, 1894; Interne, St. Louis City Hospital, 1894-95; Professor of Physiology, 1909, and Clinical Professor of Medicine, Washington University Medical School, 1910-12; Editor of the Medical Bulletin, Washington University, 1904-08; Member of the Staff of St. Luke's Hospital; Member of the Medical Reserve Corps, U.S.A. Co-editor Interstate Medical Journal. Assistant Physician to Washington University Hospital.

731 Metropolitan Building

MEYER WIENER, M.D......*Associate in Ophthalmology*

M.D., Missouri Medical College, 1896; Interne, St. Louis City Hospital, 1896-97; Member of Staff and Chief of Eye Clinic, Jewish Hospital, St. Louis; Member of Staff of Bethesda Hospital, City Hospital, St. Vincent's Asylum, and St. Louis Maternity Hospital; Editor of the Annals of Ophthalmology. Chief of the Out Patient Ophthalmological Clinic, Washington University Hospital.

Carleton Building

* On leave of absence 1913-14.

DENNIS E. JACKSON, PH.D., M.D. *Associate in Pharmacology*

A.B., Indiana University, 1905; A.M., 1906; Ph.D., 1908; M.D., Rush Medical College, 1913; Assistant in Physiology, Indiana University, 1904-06; Assistant in Pharmacology and Physiological Chemistry, University of Chicago, 1906-07; Instructor in Pharmacology, 1907-08, and Assistant Professor of Pharmacology and Physiology, Indiana University, 1908-10.

1806 Locust Street

WALTER R. BLOOR, PH.D. *Associate in Biological Chemistry*

A. M., Queen's University, 1902; A.M., Harvard University, 1908; Ph.D., 1911; Instructor and Assistant Professor, State College of Washington, 1903-07; Assistant in Biochemistry, Harvard University, 1908-10.

1806 Locust Street

VICTOR E. EMMEL, PH.D. *Associate in Anatomy*

B.S., 1903, Pacific University, M.S., 1904; Ph.D., Brown University, 1907; Instructor in Biology, Pacific University, 1903-04; Assistant in Embryology and Neurology, Brown University, 1904-07; Austin Teaching Fellow in Anatomy, Harvard University Medical School, 1907-08; Instructor in Anatomy, Washington University Medical School, 1908-10; Biologist, Rhode Island Commission of Inland Fisheries, 1904-07.

1806 Locust Street

GEORGE M. SMITH, M.D. *Associate in Pathology*

A.B., Yale University, 1901; M.D., Columbia University, 1905; Interne, Presbyterian Hospital, New York, 1905-07; Sloane Maternity Hospital, 1907, and New York Foundling Hospital, 1908-09; Instructor in Surgery, Columbia University, 1909-10. Associate Pathologist to Washington University Hospital.

10 N. Kingshighway

ERNEST SACHS, M.D. *Associate in Surgery*

A.B., Harvard University, 1900; M.D., Johns Hopkins University, 1904; Interne, Mt. Sinai Hospital, New York, 1904-07; Clinical Clerk, National Hospital, London 1908; Attending Neurological Surgeon to Montefiore Home and Beth Israel Hospitals, and Adjunct Assistant Attending Surgeon to Bellevue Hospital, New York, 1909-11. Associate Surgeon to the Washington University Hospital, Assistant Surgeon to the St. Louis Children's Hospital and Chief of the Surgical Out Patient Clinic of the Washington University Hospital.

5557 Berlin Avenue

GEORGE GELLHORN, M.D. *Associate in Gynecology*

M.D., University of Wuerzburg, 1894; Assistant in Gynecology, University of Jena, 1898; Assistant in Gynecology, University of Vienna, 1899; Gynecologist to St. Luke's Hospital, St. Louis, 1901; Gynecologist to Barnard Free Skin and

Cancer Hospital, St. Louis, 1905; Instructor and Lecturer in Gynecology, Washington University Medical School, 1904; Visiting Gynecologist to St. Louis City Hospital, 1910; Consulting Obstetrician to St. Louis Maternity Hospital, 1912. Assistant Gynecologist to the Washington University Hospital.

Metropolitan Building

FRED J. TAUSSIG, M.D.....*Associate in Gynecology*

A.B., Harvard University, 1893; M.D., St. Louis Medical College, 1898; Interne and Assistant Superintendent, Female Hospital, St. Louis, 1898-1901; Instructor and Lecturer in Gynecology, Washington University Medical School, 1906-09; Gynecologist, Barnard Free Skin and Cancer Hospital, St. Louis City Hospital, and City Sanitarium; Obstetrician, St. Louis Maternity Hospital. Assistant Gynecologist to the Washington University Hospital and Chief of the Gynecological Out Patient Clinic, Washington University Hospital.

4506 Maryland Avenue

NATHANIEL ALLISON, M.D.....*Associate in Orthopedic Surgery*

M.D., Harvard University, 1901; Interne, Boston Children's Hospital, 1901-02; Assistant, Instructor, and Clinical Lecturer on Orthopedic Surgery, Washington University Medical School, 1904-08; Orthopedic Surgeon to Martha Parsons, Free Hospital for Children, 1903-09; Surgeon to St. Louis City Hospital, 1910-12; Orthopedic Surgeon to St. Luke's Hospital; Co-editor, American Journal of Orthopedic Surgery, and Interstate Medical Journal. Associate Surgeon and Chief of the Orthopedic Out Patient Clinic, St. Louis Children's Hospital and Chief of the Orthopedic Out Patient Clinic, Washington University Hospital.

Humboldt Building

MALVERN B. CLOPTON, M.D.....*Associate in Surgery*

M.D., University of Virginia, 1897; Interne, Johns Hopkins Hospital, Baltimore, 1898-99; Instructor in Clinical Surgery, Washington University Medical School, 1906-10; Chief of Surgical Clinic, O'Fallon Dispensary, 1907-09; Visiting Surgeon, St. Luke's Hospital, 1900-13; Associate Surgeon, St. Louis Mullanphy Hospital, Associate Surgeon and Chief of the Surgical Clinic, St. Louis Children's Hospital.

Humboldt Building

BORDEN S. VEEDER, M.D.*.....*Associate in Pediatrics*

M.D., University of Pennsylvania, 1907; Interne, University of Pennsylvania Hospital, 1907-08; Pathologist, St. Christopher's Hospital, Philadelphia, 1909-11; Assistant Pathologist, General Hospital, Philadelphia, 1909-11; Medical Director, Babies' Hospital, Philadelphia, 1911; Assistant Demonstrator in Pathology, University of Pennsylvania, 1909-11. Associate Physician in Charge of Medical Service, St. Louis Children's Hospital.

1806 Locust Street

* On leave of absence 1913-14.

SIDNEY I. SCHWAB, M.D. *Associate in Neurology*

M.D., Harvard University, 1896; Professor of Nervous and Mental Diseases, St. Louis University, 1904-12; Non-resident Lecturer in Nervous and Mental Diseases, University of Missouri School of Medicine, 1909-10; Visiting Neurologist to the St. Louis City Hospital and Sanitarium, 1909-13; Visiting Neurologist to the Jewish Hospital. Chief of the Neurological Out Patient Clinic of the Washington University Hospital.

Humboldt Building

MALCOLM A. BLISS, M.D. *Instructor in Psychiatry*

D.D.S., Missouri Dental College, 1884; M.D., North Western University, 1890; Lecturer on Neurology and Instructor in Psychiatry, Washington University Medical School, 1902-10.

Humboldt Building

WALTER BAUMGARTEN, M.D. *Instructor in Medicine*

A.B., Johns Hopkins University, Baltimore, 1894; M.D., St. Louis Medical College, 1896; Interne, Female Hospital and St. Louis City Hospital, 1896-97; Assistant in Physiology, Harvard University Medical School, 1897-98; Assistant in Medicine, Johns Hopkins University Medical School, 1902-03; Instructor in Clinical Chemistry and Microscopy, Washington University Medical School, 1903-08; Member of the Medical Staff, St. Louis Maternity Hospital, 1908-13; Member of the Medical Staff, St. Luke's Hospital, and St. Louis Mullanphy Hospital.

Humboldt Building

CLEVELAND A. NEWTON, LL.B., *Instructor in Medical Jurisprudence*

LL.B., University of Missouri, 1902. Member of Missouri Legislature and Chairman of the Committee on Judiciary, 1905; Assistant United States Attorney, Western District of Missouri, 1905-07; Assistant Circuit Attorney of the City of St. Louis, 1907-11; Special Assistant to the Attorney General of the United States, 1911-13.

Security Building

WILLIAM E. SAUER, M.D. *Instructor in Laryngology*

M.D., Medical Department of Washington University, 1896; Interne, St. Louis City Hospital and Female Hospital, 1896-97; Assistant Physician, St. Louis Insane Asylum, 1897-98; Clinical Instructor in Laryngology, Medical Department of Washington University, 1906-11; Otologist and Laryngologist to St. Louis Mullanphy Hospital and Bethesda Hospital; Laryngologist to St. Louis Maternity Hospital. Chief of the Laryngological Out Patient Clinic, Washington University Hospital.

Humboldt Building

CHARLES H. DANFORTH, Ph.D.....*Instructor in Anatomy*

A.B., Tufts College, 1908; A.M., 1910; Ph.D., Washington University, 1912; Assistant in Botany, Tufts College, 1906-08; Olmstead Fellow in Biology, Tufts College, 1908; Instructor in Biology, Tufts College, 1910-11; Teaching Fellow, Harvard University Medical School, 1910-11.

1806 Locust Street

W. McKIM MARRIOTT, M.D.....*Instructor in Biological Chemistry*

B.S., University of North Carolina, 1904; M.D., Cornell University, 1910; Substitute Interne, Bellevue Hospital, New York, 1909-10; Assistant in Chemistry, University of North Carolina, 1903-04; Assistant in Biochemistry, Cornell University Medical School, 1904-06; Tutor in Chemistry, College of the City of New York, 1909.

1806 Locust Street

WALTER S. THOMAS, M.D.....*Instructor in Pathology*

M.D., University of Texas, 1906; Interne, St. Joseph's Infirmary, Houston, 1906-07; Assistant in Surgical Pathology, Fellow in Pathology and Assistant in Pathology, Johns Hopkins University Medical School, 1908-10. Assistant Pathologist to the Washington University Hospital.

5717 Von Versen Avenue

HENRY J. STORRS, M.D.....*Instructor in Obstetrics*

A.B., Amherst College, 1899; M.D., Johns Hopkins University, 1904; Resident House Officer, Johns Hopkins Hospital, 1904-05; Assistant Resident Obstetrician and Resident Obstetrician, Johns Hopkins Hospital, 1904-09; Assistant and Instructor in Obstetrics, Johns Hopkins University Medical School, 1907-09; Physician in Charge, St. Louis Maternity Hospital. Assistant Obstetrician to the Washington University Hospital.

4518 Washington Avenue

JOHN R. CAULK, M.D.....*Instructor in Genito-Urinary Surgery*

A.B., St. John's College, 1901; A.M., 1912; M.D., Johns Hopkins Medical School, 1906; Interne and 2nd Assistant Resident Physician, Union Protestant Infirmary, Baltimore, 1906-07; Assistant Resident Surgeon, Johns Hopkins Hospital, 1908-10; Genito-urinary Surgeon to Bethesda Hospital and St. Luke's Hospital, and Associate Genito-urinary Surgeon to St. Louis Mullanphy Hospital. Surgeon to Out Patients, O'Fallon Dispensary.

Humboldt Building

ROBERT A. GESELL, A.B.....*Instructor in Physiology*

A.B., University of Wisconsin, 1910; Assistant in Zoölogy, University of Wisconsin, 1909-10.

1806 Locust Street

WILLIAM H. MOOK, M.D.....*Instructor in Dermatology*
 M.D., Beaumont Medical College, 1900; Interne, St. Louis City Hospital, 1900-01; Physician, Smallpox Quarantine, St. Louis, 1901-02; Interne, New York Skin and Cancer Hospital, 1903-05; Associate Professor of Dermatology, St. Louis University, 1910-12; Visiting Dermatologist, St. Louis City Hospital, 1910-12; Associate Physician, Barnard Free Skin and Cancer Hospital; Dermatologist, Missouri Pacific Railway Hospital. Physician to Out Patients, Washington University Hospital.

Humboldt Building

RALPH WALTER MILLS, M.D.....*Instructor in Medicine*
 B.S., University of Illinois, 1899; M.D., Marion-Sims Medical College, 1902; Interne, Alexian Brothers Hospital, St. Louis, 1902-03; Assistant in Pathology, 1904-05, and Instructor in Dietetics, 1908-12, Washington University Medical School. Physician to Out Patients, Washington University Hospital.

Wall Building

VICTOR H. K. MOORHOUSE, M.D.*....*Instructor in Physiology and Pharmacology*

A.B., University of Toronto, 1908; M.D., 1910; Interne, Hospital for Sick Children, Toronto, 1910; Assistant in Pharmacology, University of Toronto, 1910-11.

1806 Locust Street

FREDERIC MOIR HANES, M.D.....*Instructor in Neurology*
 A.B., University of North Carolina, 1903; A.M., Harvard University, 1904; M.D., Johns Hopkins University, 1908; Interne, Johns Hopkins Hospital, 1908-09; Instructor, Associate and Associate Professor of Pathology, College of Physicians and Surgeons, Columbia University, New York, 1909-12; Assistant Resident Physician, Rockefeller Institute Hospital, New York, 1912-13. Physician to Out Patients, Washington University Hospital.

1806 Locust Street

ADRIEN S. BLEYER, M.D.....*Assistant in Pediatrics*
 M.D., Missouri Medical College, 1899; Assistant Physician, St. Louis City Hospital, 1899-1900, and Female Hospital, 1900-01; Lecturer on Hygiene, Medical Department of Washington University, 1907-11; Lecturer on Preventive Medicine, Washington University Medical School, 1912-; Editor, Medical Bulletin of Washington University, 1907-08. Physician to Out Patients, St. Louis Children's Hospital.

706 North Kingshighway

* On leave of absence 1913-14.

ADOLPH G. SCHLOSSSTEIN, M.D. *Assistant in Obstetrics*

M.D., St. Louis Medical College, 1894; Interne, St. Louis City Hospital, Female Hospital and Physician to City Dispensary, 1894-96; Interne, Frauenklinik, Munich, 1897; Clinical Assistant, Instructor and Lecturer, Washington University Medical School, 1899-1912. Assistant Obstetrician to the Washington University Hospital.

3153 Longfellow Boulevard

ALBERT F. KOETTER, M.D. *Assistant in Otolaryngology*

M.D., Missouri Medical College, 1892; Interne, Frauen Hospital, Dresden, 1894; Member of Staff, Deaconess Hospital, St. Louis. Surgeon to Out Patients, O'Fallon Dispensary.

Olivia Building

FREDERICK T. FAHLEN, M.D. *Assistant in Medicine*

M.D., Washington University Medical School, 1903; Interne, St. Louis Mullanphy Hospital, 1902-03; Chief of Laboratory and Member of Staff, St. Louis Mullanphy Hospital.

5594 Bartmer Avenue

JAMES ARCHER O'REILLY, M.D. *Assistant in Orthopedic Surgery*

A.B., Harvard University, 1902; M.D., Harvard University, 1906; Interne, Carney Hospital, Boston, 1906-07; Assistant in Orthopedic Clinic, Children's Hospital, Boston; Instructor in Orthopedic Surgery, St. Louis University Medical School, 1907-11; Orthopedic Surgeon to St. John's Hospital, Rebekah Hospital and Mt. St. Rose Hospital. Assistant Surgeon and Surgeon to Out Patients, St. Louis Children's Hospital and Surgeon to Out Patients, Washington University Hospital.

Metropolitan Building

LOUIS HENRY HEMPELMANN, M.D. *Assistant in Medicine*

M.D., Medical Department of Washington University, 1896; Interne, St. Louis City Hospital and City Insane Asylum, 1896-98; Assistant Superintendent, Insane Asylum, 1898; Instructor in Clinical Medicine, Washington University Medical School, 1904-12; Consultant to St. Louis City Hospital, 1909-11; Visiting Physician to St. Louis Mullanphy Hospital and Deaconess Hospital.

Metropolitan Building

JULIUS H. GROSS, M.D. *Assistant in Ophthalmology*

M.D., Medical Department of Washington University, 1893; Interne, City Infirmary, St. Louis, 1893-95; Volunteer Assistant at Eye Clinic, University of Kiel, 1899; Instructor in Ophthalmology, Washington University Medical School, 1909. Surgeon to Out Patients, O'Fallon Dispensary.

Oriel Building

FREDERICK ENO WOODRUFF, M.D......*Assistant in Ophthalmology*

M.D., Missouri Medical College, 1897; Assistant Physician, St. Louis City Hospital, 1897; formerly Member of the Medical Staff of Martha Parsons' Free Hospital for Children; Member of the Medical Staff of Bethesda Hospital and Surgeon to the St. Louis Eye, Ear, Nose and Throat Infirmary; Surgeon to Out Patients, Washington University Hospital.

Metropolitan Building

WALTER FISCHER, M.D......*Assistant in Medicine*

A.B., Harvard University, 1902; M.D., Washington University Medical School, 1905; Assistant Physician, St. Louis City Hospital, 1905-06; Associate Physician, Barnard Free Skin and Cancer Hospital. Physician to Out Patients, Washington University Hospital.

Humboldt Building

LEO CHRISTIAN HUELSMANN, M.D......*Assistant in Medicine*

A.B., Christian Brothers College, 1901; A.M., Christian Brothers College, 1905; M.D., Washington University Medical School, 1905; Associate Physician, St. Louis City Hospital, 1905-06; Consultant in Medicine, St. Louis Maternity Hospital, 1908-09; Visiting Physician, St. Louis Skin and Cancer Hospital, 1909-11; Member of Medical Staff, St. Luke's Hospital; Clinical Assistant, 1906-11, and First Assistant in Medicine, St. Louis Mullanphy Hospital.

2424 N. Grand Avenue

JEROME E. COOK, M.D......*Assistant in Medicine*

M.D., Washington University Medical School, 1905; Assistant Physician, St. Louis City Hospital, 1905-06; Professor of Bacteriology and General Pathology, Washington University Dental School; Member of Medical Staff, St. Louis Maternity Hospital. Assistant Physician to the Washington University Hospital.

Metropolitan Building

WILLIAM H. VOGT, M.D......*Assistant in Obstetrics*

M.D., Missouri Medical College, 1897; Interne, Female Hospital, 1897-98; and City Infirmary, St. Louis, 1898-99; Gynecologist and Obstetrician, Lutheran Hospital, St. Louis; Consulting Obstetrician, St. Louis Maternity Hospital. Assistant Obstetrician to the Washington University Hospital.

Metropolitan Building

RICHARD H. McBAINE, M.D......*Assistant in Medicine*

A.B., University of Missouri, 1903; M.D., Columbia University, 1907; Interne, Presbyterian Hospital, New York, 1908-10. Physician to Out Patients. Washington University Hospital.

Humboldt Building

ARTHUR O. FISHER, M.D......*Assistant in Surgery*

A.B., University of Wisconsin, 1905; M.D., Johns Hopkins University, 1909; Resident House Officer, Johns Hopkins Hospital, 1909-10; Assistant Resident Surgeon, Johns Hopkins Hospital, 1910-11. Resident Surgeon to the Washington University Hospital.

Washington University Hospital

JOHN GREEN, JR., M.D......*Assistant in Ophthalmology*

A.B., Harvard University, 1894; M.D., St. Louis Medical College, 1898; Assistant Physician, St. Louis City Hospital, 1898-99; Consulting Oculist, Female Hospital, St. Louis, 1904-06; Clinical Assistant in Ophthalmology, Jewish Hospital Dispensary, 1904-08; Ophthalmic Surgeon, Social Service Hospital, 1908-11; Ophthalmic Surgeon, St. Louis City Hospital, 1910-12; Consulting Ophthalmic Surgeon, St. Louis Maternity Hospital and St. John's Hospital; Ophthalmic Surgeon, St. Louis Eye, Ear, Nose and Throat Infirmary. Chief of the Ophthalmological Clinic, St. Louis Children's Hospital.

Metropolitan Building

BARNEY BROOKS, M.D......*Assistant in Surgery*

B.S., University of Texas, 1905; M.D., Johns Hopkins University, 1911; Resident House Officer, Johns Hopkins Hospital, 1911-12.

456 Newstead Avenue

PHILIP C. JEANS, M.D......*Assistant in Pediatrics*

A.B., University of Kansas, 1904; M.D., Johns Hopkins University, 1909; Student Instructor in Chemistry, University of Kansas, 1902-04; Interne, Garrett Hospital for Children, Baltimore, 1909, Hartford Hospital, Hartford, 1909-10, Children's Hospital, Boston, 1910-11, Floating Hospital, Boston, 1911, and City Hospital, Boston, 1911-12. Resident Physician, St. Louis Children's Hospital, 1912-13. Assistant Physician and Physician to Out Patients, St. Louis Children's Hospital.

St. Louis Children's Hospital

LELAND BARTON ALFORD, M.D......*Assistant in Pathology*

A.B., University of Missouri, 1908; M.D., Washington University Medical School, 1912; Acting Pathologist and Research Officer, Mason State Hospital, Palmer, Mass., 1910-11; Interne, Telfair Hospital, Savannah, 1912.

5024 Washington Avenue

H. EDWARD MILLER, M.D., *Assistant in Laryngology and Rhinology*

M.D., Medical Department of Washington University, 1902; Interne, St. Louis City Hospital, 1902-03. First Lieutenant, Medical Reserve Corps, U. S. A.

Metropolitan Building

GRANDISON DELANEY ROYSTON, M.D......*Assistant in Obstetrics*

M.D., Washington University Medical School, 1907; Junior and Senior Obstetrical Resident, Washington University Hospital, 1907-09; Assistant Superintendent, St. Louis Female Hospital; Member of Medical Staff, St. Louis Maternity Hospital. Surgeon to Out Patients, Washington University Hospital.

3700 Westminster Place

HUGH McCULLOCH, M.D......*Assistant in Medicine*

A.B., University of Arkansas, 1908; M.D., Johns Hopkins Medical School, 1912; Resident House Officer, Washington University Hospital, 1912-13. Resident Physician, Washington University Hospital, 1913.

Washington University Hospital

THEODORE CARL HEMPELMANN, M.D......*Assistant in Pediatrics*

M.D., Washington University Medical School, 1908; Interne, St. Louis City Hospital, 1908-09; Assistant Physician to Out Patients, St. Louis Children's Hospital, 1911-13. Physician to Out Patients, St. Louis Children's Hospital.

Metropolitan Building

HANS LISSER, M.D......*Assistant in Medicine*

A.B., University of California, 1907; M.D., Johns Hopkins University, 1911; Resident House Officer, Johns Hopkins Hospital, 1911-12. Resident Clinical Pathologist to Washington University Hospital.

Washington University Hospital

JOHN DIVEN, M.D......*Assistant in Pediatrics*

A.B., Indiana University, 1904; M.D., University of Pennsylvania, 1912; Interne, Babies' Hospital of Philadelphia, 1911, 1912. Resident Physician, St. Louis Children's Hospital.

St. Louis Children's Hospital

FRANK HENRY EWERHARDT, M.D......*Assistant in Anatomy*

M.D., Washington University Medical School, 1909; Assistant Surgeon, Orthopedic Out Patient Clinic, St. Louis Children's Hospital, 1912-14.

5248 Kensington Avenue

EXECUTIVE FACULTY

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JOSEPH ERLANGER

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Henry Schwarz, M.D.	Obstetrician in Chief
Eugene L. Opie, M.D.	Pathologist

Medicine

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Albert E. Taussig, M.D.	} Assistant Physicians
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H. McCulloch, M.D.	Resident Physician
Hans Lissner, M.D.	Resident Clinical Pathologist
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Vilray P. Blair, M.D.	} Assistant Surgeons
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John R. Caulk, M.D.	
Arthur O. Fisher, M.D.	Resident Surgeon
Roland F. Fisher, M.D.	Assistant Resident Surgeon
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Harry S. Crossen, M.D.	Associate Gynecologist
George Gellhorn, M.D.	} Assistant Gynecologists
Fred J. Taussig, M.D.	
Henry J. Storrs, M.D.	Associate Obstetrician
Adolph G. Schlossstein, M.D.	} Assistant Obstetricians
William H. Vogt, M.D.	
Q. U. Newell, M.D.	Resident Obstetrician and Gynecologist

W. E. Koppenbrink, M.D.	}	House Officers from July 1 to December 31, 1913
M. R. Johnston, M.D.			
R. J. Joseph, M.D.			
L. J. Kilian, M.D.	}	House Officers from Jan. 1 to June 30, 1914
J. C. Kopelowitz, M.D.			
O. H. Schwarz, M.D.			

Special Departments

J. B. Shapleigh, M.D.	Otologist
A. E. Ewing, M.D.	Ophthalmologist
Greenfield Sluder, M.D.	Laryngologist
M. F. Engman, M.D.	Dermatologist
Sidney I. Schwab, M.D.	Neurologist

Pathology

George M. Smith, M.D.	Associate Pathologist
Walter S. Thomas, M.D.	Assistant Pathologist
Hans Lissner, M.D.	Resident Pathologist

OUT-PATIENT DEPARTMENT OF THE WASHINGTON UNIVERSITY HOSPITAL

George Dock, M.D.	Physician in Chief
Fred T. Murphy, M.D.	Surgeon in Chief
Henry Schwarz, M.D.	Obstetrician in Chief

Medicine

G. Canby Robinson, M.D.	Chief of Clinic
Ralph W. Mills, M.D.	} Physicians to Out Patients
Walter Fischel, M.D.		
R. H. McBaine, M.D.		
O. H. Campbell, M.D.	} Assistant Physicians to Out Patients
Jacob J. Singer, M.D.		
Selig Simon, M.D.		
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Surgery

Ernest Sachs, M.D.	Chief of Clinic
F. L. Davis, M.D.	} Assistant Surgeons to Out Patients
L. C. Stocking, M.D.		
Benjamin F. May, M.D.		

Obstetrics

Henry J. Storrs, M.D.	Chief of Clinic
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Gynecology

Harry S. Crossen, M.D.	}	Chiefs of Clinic
George Gellhorn, M.D.			
Fred J. Taussig, M.D.			
G. D. Royston, M. D.	}	Surgeon to Out Patients
D. R. Parman, M.D.			
W. L. Clapper, M.D.			
William Kerwin, M.D.			
R. M. Spivy, M.D.	}	Assistant Surgeons to Out Patients

Neurology

Sidney I. Schwab, M.D.	. . . . .	Chief of Clinic
Frederic M. Hanes, M.D.	. . . . .	Physician to Out Patients
P. J. Farmer, M.D.	. . . . .	Assistant Physician to Out Patients

Dermatology

Martin F. Engman, M.D.	. . . . .	Chief of Clinic
William H. Mook, M.D.	. . . . .	Physician to Out Patients
Richard Weiss, M.D.	. . . . .	Assistant Physician to Out Patients

Ophthalmology

Meyer Wiener, M.D.	. . . . .	Chief of Clinic
F. P. Parker, M.D.	}	. . . . . Assistant Surgeons to Out Patients
C. A. Hooss, M.D.		
W. C. Owen, M.D.		

Laryngology

William E. Sauer, M.D.	. . . . .	Chief of Clinic
W. L. Johnson, M.D.	}	. . . . . Assistant Surgeons to Out Patients
A. F. Dames, M. D.		
S. S. Burns, M.D.		

Orthopedic Surgery

Nathaniel Allison, M.D.	. . . . .	Chief of Clinic
Archer O'Reilly, M.D.	. . . . .	Surgeon to Out Patients
Charles A. Stone, M.D.	}	Assistant Surgeons to Out Patients
M. L. Klinefelter, M.D.		

Social Service

Julia C. Stimson, R. N.	Head Worker
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O'FALLON DISPENSARY

Otology

John B. Shapleigh, M.D.	Chief of Clinic
Albert F. Koetter, M.D.	Surgeon to Out Patients
Harry W. Lyman, M.D.	} Assistant Surgeons to Out Patients
W. G. Krenning, M.D.	
Louis K. Guggenheim, M.D.	

Ophthalmology

Arthur E. Ewing, M.D.	Chief of Clinic
Julius H. Gross, M.D.	Surgeon to Out Patients
W. F. Hardy, M.D.	} Assistant Surgeons to Out Patients
F. O. Schwartz, M.D.	

Laryngology

Greenfield Sluder, M.D.	Chief of Clinic
H. E. Miller, M.D.	Surgeon to Out Patients
F. G. A. Bardenheier, M.D.	} Assistant Surgeons to Out Patients
M. F. Arbuckle, M.D.	

Genito-Urinary Surgery

Harry McC. Johnson, M.D.	Chief of Clinic
John R. Caulk, M.D.	Surgeon to Out Patients
D. B. Garstang, M.D.	} Assistant Surgeons to Out Patients
O. H. Fischer, M.D.	
N. W. Amos, M.D.	
H. G. Greditzer, M.D.	
Julian Petit, M.D.	
Ellis Fischel, M.D.	
H. McC. Young, M.D.	

ST. LOUIS CHILDREN'S HOSPITAL

Committee for the St. Louis Children's Hospital

Fred T. Murphy, M.D.	Surgeon in Chief
Eugene L. Opie, M.D.	Pathologist
Borden S. Veeder, M.D.	Associate Physician in Charge of the Medical Service

Medicine

George M. Tuttle, M.D.	Consulting Physician
Borden S. Veeder, M.D.	Associate Physician in Charge of the Medical Service
Philip C. Jeans, M.D.	Assistant Physician
John Diven, M.D.	Resident Physician

Surgery

Malvern B. Clopton, M.D.	} Associate Surgeons
Nathaniel Allison, M.D.	
Archer O'Reilley, M.D.	} Assistant Surgeons
Vilray P. Blair, M.D.	
Ernest Sachs, M.D.	

Special Departments

J. B. Shapleigh, M.D.	Otologist
A. E. Ewing, M.D.	Ophthalmologist
Greenfield Sluder, M.D.	Laryngologist
M. F. Engman, M.D.	Dermatologist
Sidney I. Schwab, M.D.	Neurologist

OUT-PATIENT DEPARTMENT OF THE ST. LOUIS CHILDREN'S
HOSPITAL

Fred T. Murphy, M.D.	Surgeon in Chief
----------------------	------------------

Medicine

Borden S. Veeder, M.D.	Chief of Clinic
Philip C. Jeans, M.D.	Acting Chief of Clinic

Adrien S. Bleyer, M.D.	}	. . . . .	Physicians to Out Patients
T. C. Hempelmann, M.D.			
P. G. Hurford, M.D.			
			Assistant Physician to Out Patients

Surgery

Malvern B. Clopton, M.D.	}	Chief of Clinic
Sherwood Moore, M.D.			
C. E. Hyndman, M.D.			
Thomas M. Davis, M.D.			
			Assistant Surgeons to Out Patients

Orthopedic Surgery

Nathaniel Allison, M.D.	}	. . . . .	Chief of Clinic
Archer O'Reilly, M.D.			
Charles A. Stone, M.D.			
F. H. Ewerhardt, M.D.			
			Surgeon to Out Patients
			Assistant Surgeons to Out Patients

Ophthalmology

John Green, Jr., M.D.	}	. . . . .	Chief of Clinic
J. A. Flury, M.D.			
M. Hayward Post, M.D.			
			Assistant Surgeons to Out Patients

Laryngology

Greenfield Sluder, M.D.	}	. . . . .	Chief of Clinic
C. A. Gundelach, M.D.			
			Surgeon to Out Patients

Social Service

Julia C. Stimson, R. N.	Head Worker
-------------------------	-----------	-------------

ST. LOUIS MULLANPHY HOSPITAL

Norman B. Carson, M.D., *President*Malcolm A. Bliss, M.D., *Secretary**Surgery*

Norman B. Carson, M.D.	. . . . .	Surgeon in Chief
Malvern B. Clopton, M.D.	. . . . .	Associate in Surgery
C. E. Hyndman, M. D.	. . . . .	Assistant in Surgery

Medicine

Elsworth S. Smith, M.D.	Physician in Chief
Louis H. Hempelmann, M.D. }	Associates in Medicine
Frederick T. Fahlen, M.D. }	
Walter Baumgarten, M.D. }	
Leo C. Huelsmann, M.D.	First Assistant in Medicine
E. L. Sheahan, M.D. }	Assistants in Medicine
J. J. Barry, M.D. }	

Neurology

Malcolm A. Bliss, M.D.	Neurologist in Chief
--------------------------------	----------------------

Genito-Urinary Surgery

Harry McC. Johnson, M.D.	Chief of Department
John R. Caulk, M.D.	Associate
D. B. Garstang, M.D.	Assistant

Ophthalmology

Adolf Alt, M.D.	Chief of Department
J. G. Calhoun, M.D.	Assistant

Laryngology and Otology

William E. Sauer, M.D.	Chief of Department
S. S. Burns, M.D.	Associate
A. F. Dames, M.D.	Assistant

Laboratory

Ernst F. Tiedemann, M.D.	Consulting Pathologist
J. J. Barry, M.D.	Director of Pathological Laboratory

STUDENTS, 1913-14

STUDENTS ATTENDING GRADUATE AND SPECIAL COURSES

- Furnall, David Ellsworth.....St. Louis, Mo.
M.D., Beaumont Hospital Medical College, 1900.
- Gifford, Allen W.....Tipton, Ind.
M.D., Central College of Physicians and Surgeons, Indianapolis,
1901.
- Kistner, Paul Frederick.....St. Louis, Mo.
A.B., St. Mary's College, St. Mary's, 1910.
- Lowe, Orrin C.....Paola, Kans.
M.D., University Medical College, Kansas City, 1912.
- Tharp, Royal.....East St. Louis, Ill.
M.D., St. Louis College of Physicians and Surgeons, 1906.
- Tierney, John Leo.....St. Louis, Mo.
A.B., St. Mary's College, St. Mary's, 1910.
- Williams, Walter Webster.....Grand View, Iowa
M.D., Medical Department of Washington University, 1906.
- Wilson, George Wade.....St. Louis, Mo.
A.B., St. Louis University, 1910.
- Wobus, Reinhard Ernst.....St. Louis, Mo.
M.D., Medical Department of Washington University, 1905.
- Zimmermann, Carl August William.....East St. Louis, Ill.
M.D., Medical Department of Washington University, 1897.

CANDIDATE FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

- Shackelford, Horace Harvey.....St. Louis, Mo.
A.B., University of Missouri, 1910; A.M., 1913.

FOURTH YEAR CLASS

- Abbott, Frederick Book.....St. Louis, Mo.
- Arnold, Carl Anderson.....Des Moines, Iowa
B.S., Drake University, 1912.
- Bredeck, Joseph Francis.....St. Louis, Mo.
A.B., Christian Brothers College, 1910.
- Denison, Walcott.....St. Louis, Mo.
A.B., Washington University, 1912.
- Gesell, Robert Albert.....St. Louis, Mo.
A.B., University of Wisconsin, 1910.

Gilbert, Allen Arthur	St. Louis, Mo.
Jackson, John Dee	Carthage, Ill.
Kettelkamp, George David	Nokomis, Ill.
A.B., Central Wesleyan College, 1910.	
Maxwell, Herbert Spencer	Braddyville, Iowa
A.B., University of Kansas, 1912.	
McKittrick, Ora Francis	Meadville, Mo.
McLarney, John Thomas	Farmington, Mo.
A.B., Carleton College, 1909	
Moody, Ellsworth Eurit	Cartersville, Mo.
A.B., University of Missouri, 1912.	
Smith, David English	Charleston, Mo.
Snider, Samuel Harrison	Campbell, Mo.
A.B., University of Missouri, 1912.	
Wyatt, Harrison Lee	Twin Falls, Ida.
B.S., Drake University, 1911.	

THIRD YEAR CLASS

Allen, Charles Curtis	Lawrence, Kans.
Alsop, Frederick Franklin	Morrisville, Mo.
A.B., Scarritt-Morrisville College, 1910.	
Bechtold, Edmond	Belleville, Ill.
Bock, Lux Hugo	St. Louis, Mo.
Bradford, Oscar Franklin	Sedalia, Mo.
A.B., University of Missouri, 1913.	
Brown, Damon Alonzo	Madison, Wis.
B.S., University of Wisconsin, 1913.	
Colby, Buford Monroe	Norborne, Mo.
A.B., University of Missouri, 1913.	
Cramb, Arthur Benjamin	University Place, Neb.
A.B., University of Nebraska, 1908.	
Dixon, Elliott Knight	St. Louis, Mo.
Foulon, Irenaeus Lister	East St. Louis, Ill.
Fuson, Levi Harrison	Bogota, Ill.
James, William Bonner	Joplin, Mo.
A.B., University of Missouri, 1913.	
Jones, Harold Houston	Quincy, Ill.
Judy, John Abram	Golden, Ill.
A.B., University of Missouri, 1913.	

Kellersberger, Eugene Roland.....	Fort Worth, Tex.
A.B., University of Texas, 1911.	
Kuhns, Jay M.....	Honolulu, Hawaii
Langsdorf, Herbert Sidney.....	St. Louis, Mo.
Muench, Ludwig Orlando.....	Washington, Mo.
A.B., University of Missouri, 1913.	
Roberts, Edwin Howerton.....	Lexington, Mo.
A.B., University of Missouri, 1912.	
Rose, Dalton Keats.....	Decatur, Mich.
Rossen, Julius Albert.....	St. Louis, Mo.
Squibb, Harry Watson.....	Springfield, Mo.
Strode, Joseph Emerson.....	Bates City, Mo.
Toomey, Thomas Noxon.....	St. Louis, Mo.
A.B., Catholic University of America, 1912.	
Vinyard, Robert.....	Jackson, Mo.
Wennerman, Samuel Franklin.....	Springfield, Mo.
Wilkening, William Theodore.....	Oak Ridge, Mo.
Williamson, Howard Moore.....	Mexico, Mo.
A.B., University of Missouri, 1913.	

SECOND YEAR CLASS

Hennerich, Walter Emil.....	St. Louis, Mo.
McCormack, Noble DuBois.....	St. Louis, Mo.
Stevenson, Paul Huston.....	Maplewood, Mo.
B.S., Hiram College, 1913.	

FIRST YEAR CLASS

Abrams, Samuel Frank.....	St. Louis, Mo.
Brookes, Henry Spence, Jr.....	St. Louis, Mo.
Brown, Wilbur Kenneth.....	Troy, Ill.
A.B., Shurtleff College, 1913.	
Elliott, Benjamin Landis.....	St. Louis, Mo.
Fry, Leonard Cook.....	St. Louis, Mo.
A.B., Central College, 1911.	
Kirby, Alexander Crump.....	Harrison, Ark.
A.B., University of Arkansas, 1913.	
McNalley, Powell Frank.....	St. Louis, Mo.
Mueller, Robert.....	St. Louis, Mo.
Myers, George Marshall.....	St. Louis, Mo.

Kellersberger, Eugene Roland.....	Fort Worth, Tex.
A.B., University of Texas, 1911.	
Kuhns, Jay M.....	Honolulu, Hawaii
Langsdorf, Herbert Sidney.....	St. Louis, Mo.
Muench, Ludwig Orlando.....	Washington, Mo.
A.B., University of Missouri, 1913.	
Roberts, Edwin Howerton.....	Lexington, Mo.
A.B., University of Missouri, 1912.	
Rose, Dalton Keats.....	Decatur, Mich.
Rossen, Julius Albert.....	St. Louis, Mo.
Squibb, Harry Watson.....	Springfield, Mo.
Strode, Joseph Emerson.....	Bates City, Mo.
Toomey, Thomas Noxon.....	St. Louis, Mo.
A.B., Catholic University of America, 1912.	
Vinyard, Robert.....	Jackson, Mo.
Wennerman, Samuel Franklin.....	Springfield, Mo.
Wilkening, William Theodore.....	Oak Ridge, Mo.
Williamson, Howard Moore.....	Mexico, Mo.
A.B., University of Missouri, 1913.	

SECOND YEAR CLASS

Hennerich, Walter Emil.....	St. Louis, Mo.
McCormack, Noble DuBois.....	St. Louis, Mo.
Stevenson, Paul Huston.....	Maplewood, Mo.
B.S., Hiram College, 1913.	

FIRST YEAR CLASS

Abrams, Samuel Frank.....	St. Louis, Mo.
Brookes, Henry Spence, Jr.....	St. Louis, Mo.
Brown, Wilbur Kenneth.....	Troy, Ill.
A.B., Shurtleff College, 1913.	
Elliott, Benjamin Landis.....	St. Louis, Mo.
Fry, Leonard Cook.....	St. Louis, Mo.
A.B., Central College, 1911.	
Kirby, Alexander Crump.....	Harrison, Ark.
A.B., University of Arkansas, 1913.	
McNalley, Powell Frank.....	St. Louis, Mo.
Mueller, Robert.....	St. Louis, Mo.
Myers, George Marshall.....	St. Louis, Mo.

Kilian, Leo Julius.....	St. Louis, Mo.
Kopelowitz, Jonas Clarence.....	St. Louis, Mo.
Koppenbrink, Walter Edwin	Alma, Mo.
Larimore, Joseph William	Greenfield, Ind.
A.B., DePauw University, 1908.	
McKelvey, Samuel Wheelles.....	Nashville, Ill.
Perrings, Fred Selby.....	Morrisonville, Ill.
A.B., Washington University, 1910.	
Rodenheiser, Edwin William.....	Belleville, Ill.
Sante, LeRoy.....	St. Louis, Mo.
Schwarz, Otto Henry.....	St. Louis, Mo.
Sevin, Omar Richard.....	Higginsville, Mo.
Slocumb, Leith Hollinshead.....	St. Louis, Mo.
Thompson, Preston.....	Brumley, Mo.
Wagenbach, William.....	St. Louis, Mo.

GRADUATES APPOINTED TO WASHINGTON UNIVERSITY
HOSPITAL AND ST. LOUIS CHILDREN'S HOSPITAL

Medical Service

J. W. Larimore

Surgical Service

O. R. Sevin

Obstetrical Service

F. O. Kettelkamp

M. R. Johnston

R. J. Joseph

Pediatric Service

L. J. Kilian

J. C. Kopelowitz

O. H. Schwarz

GENERAL STATEMENT

HISTORY AND ORGANIZATION

The Medical Department of Washington University, known since 1909 as the Washington University Medical School, continues the work of the St. Louis Medical College and the Missouri Medical College, the two oldest medical schools west of the Mississippi River.

The Medical Department of Kemper College of St. Louis was organized in 1840; in 1845 it became the Medical Department of the University of the State of Missouri. By change of its charter in 1855, it was made an independent institution known as the Missouri Medical College. The work of the School was discontinued in 1862, but resumed in 1865 at the end of the Civil War.

The Medical Department of St. Louis University, founded in 1842, was chartered as an independent institution in 1855 under the name of the St. Louis Medical College.

The Medical Department of Washington University was created by the Corporation in 1891, when the St. Louis Medical College became a part of the Washington University. In 1899 the Missouri Medical College was merged with this department.

Graduates of the St. Louis Medical College number 2,125; of the Missouri Medical College, 2,836; and of the Medical Department of Washington University, 660.

In 1910 the Corporation of the University, appreciating the value of the service which a medical school can give to the community, with the co-operation of the Medical Faculty, reorganized the School in all departments and appointed heads of departments and instructors in anatomy, physiology, biological chemistry, pathology, preventive medicine, medicine, surgery, and pediatrics, who devote themselves to teaching and research, and associated with this staff clinical instructors chosen from the medical profession of St. Louis. These changes were made with the aid of funds donated by philanthropic citizens of St. Louis.

An affiliation has been established between the Barnes Hospital and the St. Louis Children's Hospital and Washington University, by which the University agrees to provide the medical staffs of the hospitals, and the hospitals agree to permit the University to

use the hospitals for purposes of teaching and research. These hospitals are erecting buildings on Kingshighway overlooking Forest Park. Adjacent to the hospital buildings, large, thoroughly equipped laboratories are in process of construction (see p. 42). With this equipment and with the use of other hospitals in the city, the teaching staff of the University will be able to give laboratory and clinical instruction, and to conduct and direct research in all branches of medicine. The new buildings and equipment will be available for use in the summer of 1914. In the meantime the laboratory work will be conducted in the building in present use on Locust and Eighteenth streets. This building has been remodeled and its equipment greatly increased.

The clinical staffs have been reorganized, and conduct the clinical work at the Washington University Hospital, which the University owns and directs; at the Mullanphy Hospital, with which the University has an agreement; at the St. Louis Children's Hospital, which is in operation in its present quarters, under the affiliation with Washington University, and at other hospitals in the city. Dispensary work is conducted at the O'Fallon Dispensary, at the Washington University Hospital Dispensary, and at the Dispensary of the St. Louis Children's Hospital.

BUILDINGS, LABORATORIES, LIBRARIES, AND CLINICAL FACILITIES

The Medical School occupies two buildings, in which the greater part of the work of the school is conducted. It has exclusive use of the teaching privileges of three hospitals, readily accessible from the Medical School, and has clinical privileges in the various City Institutions.

LOCUST STREET BUILDING

In the building, on Locust street between Eighteenth and Nineteenth streets, are the offices of the Dean and Registrar, and the laboratories and lecture rooms of the Departments of Anatomy, Bio-Chemistry, Physiology, Pharmacology, Bacteriology, Pathology and Experimental Surgery, and the O'Fallon Dispensary.

Extensive changes have recently been made in this building and much valuable equipment has been added in all departments. It now offers excellent facilities for teaching and investigation, and will be used as headquarters for the Medical School until the buildings now in course of construction are completed.

LIBRARIES

The Medical Library of the School is installed in the former Museum of Fine Arts, on Locust Street opposite the Medical School Building, and is in charge of a Librarian with assistants. It contains (October 1, 1913) 15,000 bound volumes and receives 315 of the most important medical periodicals, selected with reference to the needs of students and investigators. Provision has been made for a rapid increase in the number of volumes. The Library is open to students daily from 9 A. M. until 5.30 P. M.

The Library has been fortunate in securing, by generous gift of Mrs. Benjamin Brown Graham, the private library of the late Julius Pagel, Professor of the History of Medicine at the University of Berlin. The collection comprises between 2500 and 3000 volumes, including many works on the history of medicine, medical biography, terminology, medical sociology and ethics.

Other libraries in St. Louis which contain literature relating to medicine, and are available to students, either directly or through the Library of the School, are the following:

The Library of Washington University, Skinker road.

The St. Louis Medical Library, 3525 Pine street.

The St. Louis Public Library, Olive and Fourteenth streets.

The Library of the Missouri Botanical Garden, Shenandoah and Tower Grove avenues.

The Library of the St. Louis Academy of Science, 3817 Olive street.

The Mercantile Library, Broadway and Locust street.

MUSEUM

A Museum of Pathology contains suitably prepared specimens used in the teaching of Pathological Anatomy. Diseases of the bones are well illustrated by a large number of specimens collected by Dr. Charles A. Pope.

The present small group of anatomical preparations is the beginning of a collection planned to develop in a definite way. It comprises type specimens of adult organs and organic systems, specimens presenting variations and preparations illustrating development.

WASHINGTON UNIVERSITY MEDICAL SOCIETY

The Washington University Medical Society has been established to promote the advance of medicine in the University and in the hospitals affiliated with it by discussion of investigations undertaken in the laboratories and hospitals. The first meeting was held December 9, 1912; meetings are held on the second Monday of each month during the academic year. These meetings are open to students of the school.

MEDICAL BULLETIN OF WASHINGTON UNIVERSITY

The Medical Bulletin contains articles embodying investigations conducted in the various departments of the Medical School. It will contain the transactions of the Medical Society.

WASHINGTON UNIVERSITY HOSPITAL

The Washington University Hospital, situated at the corner of Jefferson and Lucas avenues, is an organic part of the Medical School, and is entirely controlled by the Corporation of the University, through a Committee of the Medical Faculty.

The attending staff consists of the heads of the departments of Medicine, Surgery, and Obstetrics, with their assistants. The location, in the heart of the City, is very advantageous, and the attendance, both in the wards and in the dispensary, is large and varied.

In the summer of 1911 the Hospital was thoroughly renovated. Provision has been made for 100 patients. Room was gained for in-patients and for laboratory and teaching rooms by installing part of the house staff in an adjacent building. The out-patient clinic rooms were also rearranged and are now well equipped for the treatment of patients and the instruction of students. Three laboratories give facilities for the investigations necessary in diagnosis.

The Hospital receives both free and pay patients. Patients, if needy, are admitted on the recommendation of a member of the attending staff. Others are admitted at moderate rates.

The laboratories are in charge of the Associate Professor of Medicine, assisted by the Resident Pathologist, to whom are assigned some of the more refined diagnostic procedures. There are facilities for a limited number of research workers in these laboratories.

TRAINING SCHOOL FOR NURSES

The Washington University Training School for Nurses offers unusual advantages in that instruction is given in the laboratories of the Medical School in Anatomy, Physiology, Chemistry, and Bacteriology, and the practical training includes work in the Obstetrical Service and the St. Louis Children's Hospital, as well as in the general medical and surgical wards. An opportunity is given for special experience in the operating room and in home visiting under the direction of the Social Service Department.

Pupils and graduates are comfortably housed in buildings near the Hospital. The course of training is three years, including the period of probation. Credit is given for the special preparatory courses offered by Columbia University and Simmons College.

SOCIAL SERVICE DEPARTMENT

The Social Service Department of the Washington University Hospital is conducted in co-operation with that of the St. Louis Children's Hospital. Besides the head worker there is one assistant who devotes her entire time to the cases from the University Hospital and Dispensary, and another, to the pre-natal work in the Department of Obstetrics. This department affords an opportunity for students and nurses to become familiar with the home needs of patients and the methods of relief.

THE OUT-PATIENT DEPARTMENT OF THE WASHINGTON UNIVERSITY
HOSPITAL

This Department was formerly known as the Polyclinic Dispensary. It was remodeled and enlarged in 1911 at the same time that changes were made in the Hospital. Laboratories and operating rooms are connected with the various clinics, and through the large out-patient service, it affords unusual facilities for clinical instruction. Members of the third year class in small sections work in these clinics under the supervision of the out-patient staff.

From July 1, 1912 to July 1, 1913, 10,968 new cases, and 34,629 old cases were treated.

The out-patient obstetrical service affords abundant opportunity for teaching. Members of the obstetrical staff visit patients and supervise the work of the undergraduates. The work of the service

is facilitated by the co-operation of the Social Service Department of the Hospital. From July 1, 1912, to June 30, 1913, 457 patients were delivered.

LABORATORY FOR PHOTOGRAPHY AND ACTINOGRAPHY

The laboratory contains a complete equipment for photography and roentgenography. A technician has charge of the routine work. Facilities are offered for diagnosis and treatment, and for investigation. During the past year the X-ray study of lesions of the gastrointestinal tract has received special attention.

O'FALLON DISPENSARY

The O'Fallon Dispensary occupies the first floor of the Medical School Building on Locust street. If patients require hospital treatment, they are referred to the Washington University Hospital.

The following clinics are installed, each with its own rooms, for examination of patients and instruction of students: Ophthalmology, Otology, Laryngology and Rhinology, and Genito-Urinary Surgery.

There is a clinical laboratory accessible to all departments and an amphitheater for clinical lectures.

From July 1, 1912, to July 1, 1913, 3,298 new cases and 18,988 old cases were treated in this Dispensary.

ST. LOUIS CHILDREN'S HOSPITAL

The wards in the buildings have been rearranged and the quarters for internes enlarged. A resident physician, who is responsible for service in the absence of the attending staff, has been appointed. The institution has 100 beds, and offers facilities for bedside study and instruction in the diseases of infancy and childhood, including the infectious diseases. The Hospital has a large out-patient department, which is available for teaching purposes.

An agreement has been made between the St. Louis Children's Hospital and Washington University, by the terms of which Washington University selects the medical staff of the Hospital and utilizes the wards of the Hospital and the Dispensary for teaching.

ST. LOUIS MULLANPHY HOSPITAL

This Hospital was founded in 1828 and is conducted under the charge of the Sisters of Charity.

In the hospital proper approximately one hundred patients are admitted each month for treatment, and in the out-patient department about twenty-five hundred new cases are treated annually. The students of the fourth year class are assigned to the care of patients in the wards under the supervision of the attending and house staffs, and serve as ward clerks.

BETHESDA HOSPITAL

The Bethesda Hospital is within a ride of twenty minutes from the Medical School. This institution cares for infants and young children in one of its departments and has a large amount of clinical material that may be used for teaching and special study.

THE NEW MEDICAL SCHOOL BUILDINGS AND THE AFFILIATED HOSPITALS

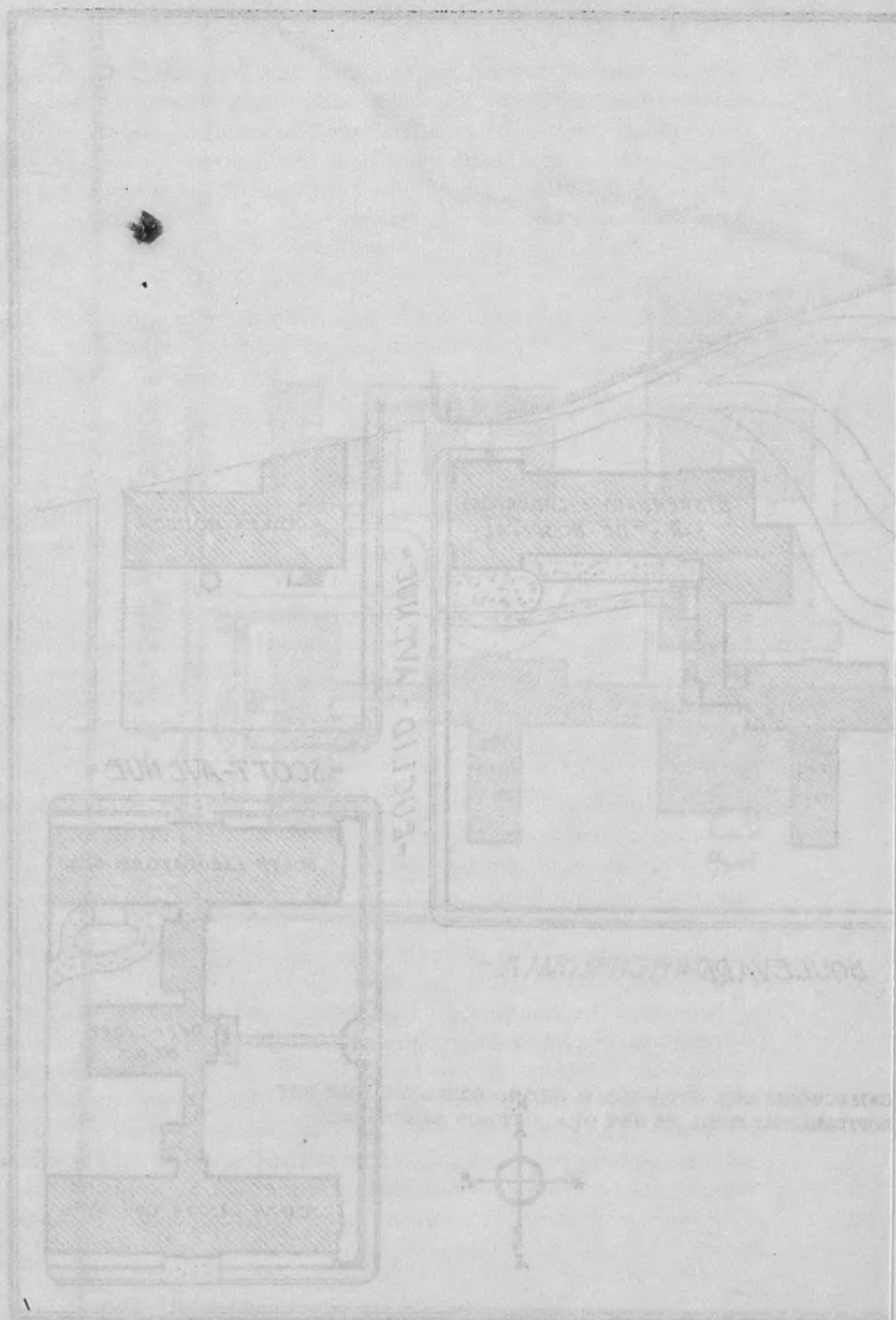
The new Medical School buildings and the Barnes Hospital will be completed and ready for occupancy at the opening of the session 1914-15. The new buildings of the St. Louis Children's Hospital are completely planned and in process of construction. The Medical School will occupy three large buildings connected by corridors and tunnel with the hospitals.

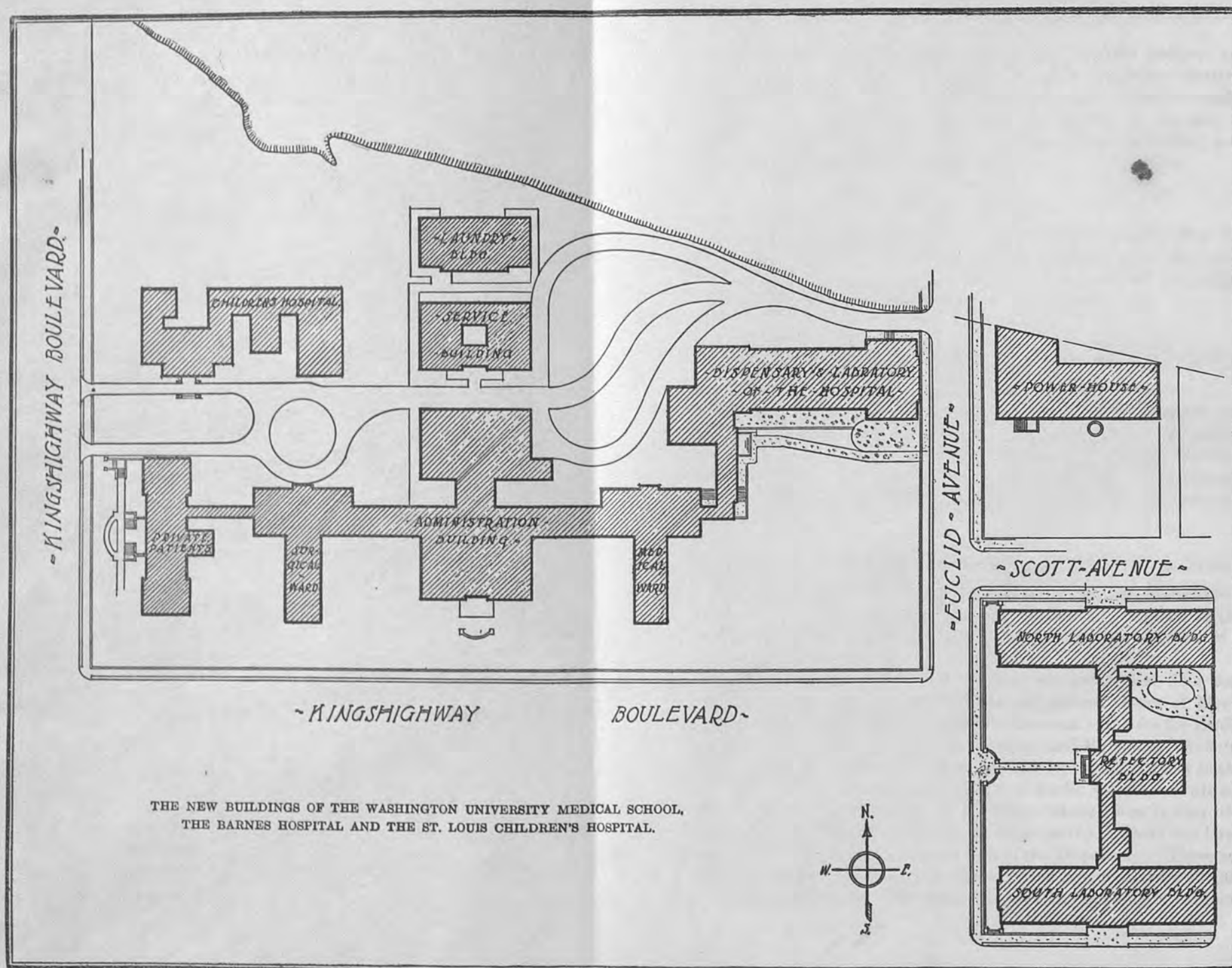
BUILDING FOR DISPENSARY AND LABORATORIES OF THE HOSPITALS

The Dispensary, the Clinical Laboratory, and the Pathological Laboratory occupy a large building 232 by 60 feet, situated at the northeast corner of the hospital lot. This building consists of a basement and four floors.

Dispensary. The Dispensary occupies the entire first floor and basement and contains rooms for the out-patient clinics of Medicine, Surgery and Pediatrics on the first floor and rooms for the clinics of Neurology, Ophthalmology, Laryngology and Rhinology, Otology, Dermatology, Genito-Urinary Diseases, and Orthopedic Surgery in the basement. Patients enter the building on Euclid Avenue and are assigned to the various clinics by an officer whose room is near the entrance. The Social Service has an office nearby. There is a large waiting room for patients on each floor of the Dispensary. There are laboratories for clinics and class rooms for the instruction of students.

Clinical Laboratory. The second floor of the building is occupied





THE NEW BUILDINGS OF THE WASHINGTON UNIVERSITY MEDICAL SCHOOL,
THE BARNES HOSPITAL AND THE ST. LOUIS CHILDREN'S HOSPITAL.

by the Clinical Laboratory, which is divided into pathological, bacteriological and chemical sections. Occupying the western end of the floor is a large laboratory equipped for instruction in clinical microscopy and chemistry. There are smaller laboratories for physicians and students engaged in research.

Pathological Laboratory. The pathological laboratory of the hospitals and medical school consists of a mortuary and an autopsy room occupying an extension of the west end of the building and of two floors devoted to teaching and investigation in pathology. The extension containing the autopsy room and mortuary is connected with the hospital by a corridor. It contains a chapel in which burial services may be held. The autopsy room is provided with an amphitheatre and in immediate contact with it is a large room which will be used for the teaching of gross pathology.

On the third floor of the building is a class laboratory for bacteriology and pathology. This laboratory consists of three rooms occupying the north side of the building, each equipped to seat class sections of twenty students. On the two floors are rooms equipped for investigation in pathological anatomy, and in chemical and physiological pathology. There are rooms for technical work in histology, for the preparation of media, store rooms and a tool room. A lecture room seating approximately one hundred students and provided with projection apparatus is situated upon the fourth floor in contact with the museum. On the roof of the building are quarters for animals and rooms suitably equipped for experimental pathology.

Museum of Pathology. The Museum occupies a large space at the eastern end of the building and is provided with a gallery situated below the skylight. Here will be housed the museum of pathology used in the teaching of pathological anatomy, medicine and surgery.

THE NORTH LABORATORY BUILDING

The North Laboratory Building on Euclid avenue opposite the Barnes Hospital has four stories, with basement and available attic and roof space. Within it will be housed the administrative offices of the Medical School, the auditorium, the library, and the departments of preventive medicine, experimental surgery and anatomy. The building is connected with the South Building by corridors, and with the hospitals and power house by means of a wide passage beneath the street. The outside dimensions of the North Building

are approximately 209 feet from east to west by 56 feet from north to south, giving a floor area of 11,351 square feet for each story.

Auditorium and Administrative Offices. On the first floor will be found the library, offices of the school and the auditorium. The latter occupies the east end of the building, and is reached by a corridor leading from the main entrance and passing the Faculty Room and the administrative offices of the Medical School. It will have a seating capacity for 600 persons, and may be used for public lectures.

Library. The general medical library occupies the west half of the first floor, a location conveniently accessible to all departments of the School. The stack room accommodating about 40,000 volumes, and the rooms for cataloguer and librarian have been designed for efficient service. A general reading room and three specially equipped smaller study rooms complete the present plans for this department.

Experimental Surgery. On the second floor of the North Building the space is equally divided between the departments of preventive medicine and surgery, the latter having here its laboratories for experimental study, which include two operating rooms with adjoining preparation and sterilizing rooms. Students will be received for class work in the large laboratory of experimental surgery, and advanced workers are provided for in small laboratory rooms.

Preventive Medicine. The eastern half of the second floor has been arranged in adaptation to the wants of the department of preventive medicine. A bacteriological laboratory, class room and museum are designed for teaching purposes; there are two research laboratories, rooms for maintaining constant temperature and for cold storage, balance room and quarters for animals.

Anatomy. The department of anatomy occupies the whole of the third and fourth floors. On the third floor are three class laboratories arranged on the north side of the building for the teaching of histology and embryology. Each will accommodate from twenty to twenty-four students. Rooms for instructors adjoin the class laboratories. At the western end of this floor are the anatomical lecture room and small public museum, the aquarium and a modeling room. A research laboratory equipped specially for microscopical methods, a photographic laboratory, drafting room, physical-chemical laboratory and technician's suite occupy the eastern half of the third floor. The arrangement of the fourth floor is adapted to the needs of gross anatomy. The western half is given over to the dis-

secting room, wash room and locker rooms. The dissecting room is a large chamber partially subdivided into three broad alcoves by the interposition of museum cases. Each alcove, lighted by high windows at one side, will accommodate from twenty to thirty students. The eastern half of this floor is occupied by laboratories for instructors, a research laboratory equipped for the methods of gross anatomy, a seminar room, a technicians' suite, and a room for centrifuges.

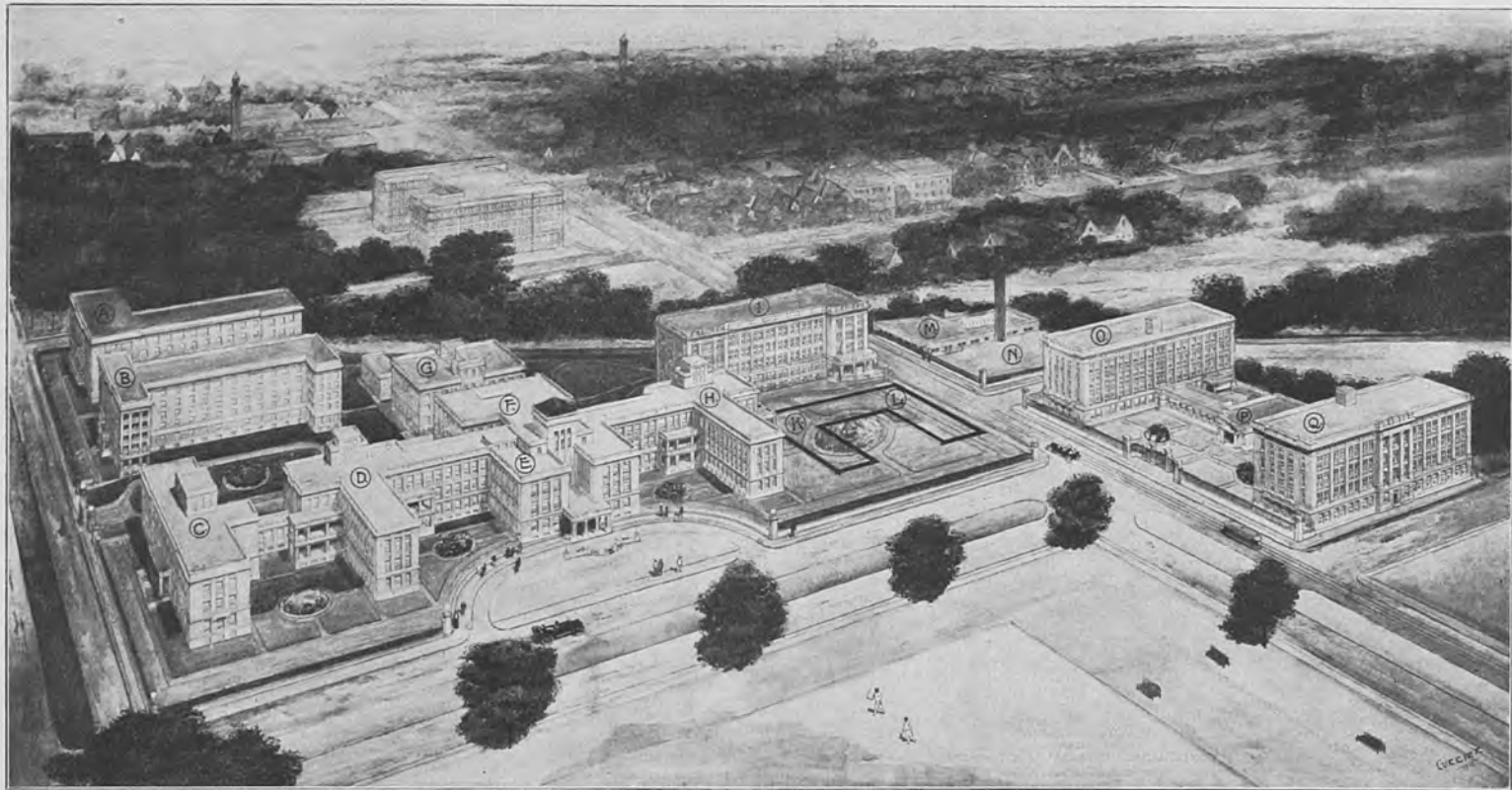
In the basement are embalming rooms and store rooms. The ample attic space has been utilized for several purposes: an operating suite, a shop and store room, isolated rooms for the preparation of bones, a crematory and quarters for animals.

Equipment of Building. Unit systems prevail not only in the general construction of the building, but so far as advantageous in the fixtures and furnishings. Provision is made in all lecture rooms for the different methods of optical projection and for demonstrations involving the use of gas, water, electricity and compressed air. Research laboratories and technicians' rooms are furnished with forced draft hoods, electricity, steam and apparatus for controlling the temperature.

THE SOUTH LABORATORY BUILDING

The South Laboratory Building will be of the same size and exterior design as the North Laboratory Building with which it is connected by a corridor. Opening upon the corridor are the telephone exchange, a lunch room, and rooms for janitor service. The building is 56 feet wide, 209 feet long and four stories in height, giving a gross floor area of about 45,000 square feet. It will accommodate the Departments of Physiology, Pharmacology and Biological Chemistry.

Biological Chemistry. Almost the whole of the first floor is devoted to instruction in Biological Chemistry. The west end of the building contains a large class laboratory with chemical tables, hoods, sinks and other facilities for sixty students. Opening upon this laboratory or closely adjoining are a balance room, a dark room for work with optical instruments, a warm room, a refrigerator room, rooms for storage and for the preparation of material used by the class, and a room for centrifuges, presses, and other bulky apparatus. In the rear half of the first floor are the chemical lecture room with small adjoining rooms for the preparation of lecture demonstrations, a laboratory for students taking special courses, an instructor's laboratory and rooms arranged for certain chemical work in connec-



WASHINGTON UNIVERSITY MEDICAL SCHOOL BUILDINGS, BARNES HOSPITAL, ST. LOUIS CHILDREN'S HOSPITAL.

- | | | | | |
|-----------------------------------|-----------------------------|------------------------------|--|---|
| A. Site of Nurses' Home. | E. Hospital Administration. | I. Dispensary and Pathology. | N. Animal Yard. | P. Refectory Building. |
| B. St. Louis Children's Hospital. | F. Operating Pavilion. | K. Obstetrical Site. | O. School Administration, Anatomy, Preventive Medicine and Experimental Surgery. | Q. Biological Chemistry, Pharmacology and Physiology. |
| C. Private Room Pavilion. | G. Service Building. | L. Infirmary Site. | | |
| D. Surgical Wards. | H. Medical Wards. | M. Power House. | | |

THE BARNES HOSPITAL

The Barnes Hospital under the auspices of the Methodist Episcopal Church, South, is affiliated with the Washington University Medical School. The buildings are situated upon a lot which runs from Kingshighway on the west to Euclid avenue on the east, facing Forest Park upon the south and west. The group of hospital buildings proper consists of an administration building, from which extend corridors leading to the medical and surgical wards, and to a private pavilion, service buildings, and a laundry. These buildings are of fire proof construction with exterior walls of impervious light gray brick, trimmed with limestone, floors of marble tile or battle ship linoleum, and interior walls of tile, enameled brick, glass, or marble.

The main entrance of the administration building opens upon a spacious rotunda containing a bronze bust of the donor, Robert A. Barnes. On the one side of this rotunda is situated the general information office, and on the other are the administrative office, the trustees' room, offices of the superintendent, and rooms for the attending physicians. The resident medical staff is housed in the second and third stories of this building. The lecture room for the medical department is located in the two upper stories and is sufficiently large to accommodate the student body as well as visitors.

To the north of this main administration building are the service buildings containing kitchens, dining-room, bakery, and laundry, and rooms for the hospital employees. On the top floor is the operating pavilion. The arrangement of this space is such that the incoming patients may be conducted to the etherizing rooms by way of a separate corridor and are not brought into contact with the routine work of the department. There are three small and one large operating rooms. The larger room has a small amphitheatre and is equipped with a projection apparatus for the demonstration of specimens, microscopic sections and lantern slides. Besides necessary dressing rooms, the attending staff has an examining suite for private cases consisting of three rooms with a secretary's room. The large work-room for the nurses has a western and southern exposure, thus insuring the best of working conditions. A central sterilizing plant just off the work-room contains sterilizing accommodations for the entire hospital. There are recovery rooms and special examining rooms so located that they are easily accessible to the nurs-

ing force. Between the operating rooms are surgical wash rooms with full equipment for instrument sterilizing, with blanket warmers, etc. The entire operating pavilion is supplied with sterilized water from the special tank located in this pavilion. On the first floor of the pavilion are a well-equipped receiving ward and emergency department which will provide for continuous service.

The building at the west of the hospital lot facing Forest Park both on the south and west is the private pavilion. Its separate entrance on Kingshighway gives to a service with all the advantages of a general hospital the convenience of a private hospital. The arrangement of the rooms is such that patients may have single private rooms or rooms en suite with bath. Arrangements for separate service allow of such variation as may be desired.

The wings containing the wards of the hospital are situated on either side of the administration building. They are three stories high and have the shape of the letter "T." With their southern exposure these open wards are insured sunlight. The service is centered at the north end and so arranged as to reduce to a minimum the effort of the necessary routine. On either side of the ward at the junction of the corridors, and facing south are porches, one for convalescent and the other for the bed patients. By this arrangement all patients may be placed out of doors.

With the space in the private pavilion the initial capacity of the Barnes Hospital is approximately 220 beds. A sufficient space is reserved to increase this number materially.

The Hospital contains numerous class rooms, laboratories, lecture rooms, and examining rooms in addition to the accommodations usually found in general hospitals. Special provision has also been made for a complete equipment in the department of radiography and hydrotherapeutics, special wards and equipment are provided for studying metabolism and there are special laboratories for microscopical and chemical diagnosis.

All of the buildings which have been described are connected by at least two corridors, one in the basement and one above ground. Service elevators are so distributed that all service, traffic and trucking, are confined to the basement corridor. Corridors connect the hospital with the buildings of the Medical School and with the St. Louis Children's Hospital.

THE ST. LOUIS CHILDREN'S HOSPITAL

The St. Louis Children's Hospital is placed on the same tract as the Barnes Hospital, immediately northwest of it, facing Forest Park on the west. It is built of grey brick and harmonizes in color and design with the adjacent buildings. The Hospital will have general medical wards, auditorium and contagious wards with the accessory equipment of each.

The building devoted to general hospital work is approximately 88 feet by 88 feet. It is five stories high, with offices for the admission of patients and other administrative purposes on the ground floor, wards for general medicine on the second floor, wards for infants on the third floor, and wards for general and orthopedic surgery on the fourth floor, laboratories, director's suite, and rooms for the residents and internes on the fifth floor. In this part of the Hospital there will be one hundred beds.

The building for contagious diseases, 88 feet by 45 feet, has a basement and three floors, and will contain forty beds. One of the three floors will be for patients with diphtheria, one for patients with scarlet fever, and the other for patients with measles. Each of these floors is entirely separate from the others, the elevators and stairs being on the outside of the building.

Between the general hospital and the contagious building there is an auditorium two stories high, connected with the other two buildings.

A valuable adjunct to the St. Louis Children's Hospital is its Convalescent Home, located on the Missouri Pacific Railway, one and one half miles from Valley Park, overlooking the Meramec River. This home which is upon a tract of land of one hundred and twenty-five acres, will increase the efficiency of the Children's Hospital, accommodating at present about twelve patients.

POWER PLANT

The power plant will be located east of Euclid avenue and north of the North Laboratory Building. It will furnish light, heat and power to the buildings of the Medical School including the Dispensary, the Barnes Hospital and the St. Louis Children's Hospital.

HOSPITAL APPOINTMENTS

In the second trimester of the year, internes for the Washington University Hospital and for the St. Louis Children's Hospital are selected by the Medical School.

The services begin July 1 and September 1, and are for one year. For 1913-14 these services are as follows:—

Washington University Hospital.

Medical Service, two positions;

Surgical Service, two positions;

Obstetrical Service, three positions.

St. Louis Children's Hospital, three positions.

The medical and surgical services are for the full period of one year.

The obstetrical service and the service in the St. Louis Children's Hospital are combined and give the internes a service of six months in each department.

Besides these positions which are in services controlled by the University, internes are nominated by the Medical School for positions in the following hospitals:

St. Louis Mullanphy Hospital, two positions.

St. Luke's Hospital, one position.

St. Anthony's Hospital, one position.

Appointments to these positions are usually made from members of the fourth year class of the Medical School. While preference is shown members of the School or its graduates, graduates or members of the fourth year class of other schools may apply for appointment, and in cases of unusual qualifications such men may be nominated for positions. Selection is made from those applying for positions on the basis of class standing in required work, upon evidence of special fitness as shown by work in elective courses, upon personal considerations, and, when desired by the Faculty, upon examination.

About seventy other appointments are made each year to Internships in the various hospitals of St. Louis not connected with the University. The fourth year students and graduates of this School may compete with those of other schools for these positions, which are filled upon the basis of examinations conducted by the respective boards of the hospitals.

REQUIREMENTS FOR ADMISSION

Candidates for entrance will be required to have completed satisfactorily at least two full years of collegiate work, which must include the following:

1. **ENGLISH.** A course of at least three hours a week for one year is required.

2. **GERMAN.** A reading knowledge of the German language is required. The ground covered in collegiate courses of at least three hours a week for two years represents the training considered necessary to meet this requirement. Candidates for admission deficient in German may enter with a condition in this subject; the condition must be removed before the beginning of the second year of medical work.

3. **PHYSICS.** A course of at least two hours of lectures and three hours of quantitative work in the laboratory per week for one year is required.

4. **CHEMISTRY.** A full collegiate course of at least two hours of lectures and six hours of laboratory work for one year, or the equivalent, is required. Students in Washington University take two years of chemistry, including quantitative and qualitative analysis. Candidates for admission are advised to complete these courses, particularly quantitative analysis, before they enter the Medical School. If they have not completed this work, they will be required to undertake similar courses during the first trimester of the first year in addition to the regular work of the medical curriculum.

5. **BIOLOGY.** A course of two hours of lectures and six hours of laboratory work a week for one year, upon the structure, functions, and life history of selected types of animal and plant life is required. Courses in botany and zoölogy will be accepted as fulfilling this requirement, provided the laboratory work has been adequate. The course should include laboratory instruction in elementary embryology.

Applicants for admission are required to submit credentials from the college in which they have studied. A statement from the college should enumerate the completed courses in those subjects which are required for admission to this school. It is desirable that the statement include the number of hours devoted to class and laboratory work in each subject. The degrees which have been

received or the number of years of collegiate study successfully completed should be stated. A blank form for recording these data will be furnished upon application.

No candidate will be admitted who has a condition in any required branch except German.

While two years of collegiate work, as in part above specified, fulfills the minimum requirement for entrance to the Medical School, the broader training afforded by additional years of academic work offers better preparation for the study and practice of medicine. Students intending to pursue the study of medicine should, if possible, complete the four-year college course before entering the Medical School.

For the guidance of those who wish to select college courses preparatory to the study of medicine, the arrangement of studies offered by this University is given below.

Those who can devote only two years to the preparatory work in college are advised to adopt the following schedule:

FRESHMAN YEAR

<i>First Semester</i>	<i>Second Semester</i>
English 1*.....3 units	English 1.....3 units
German 1.....3 units	German 1.....3 units
(German may be omitted by students possessing a reading knowledge of the language.)	
Chemistry 1.....3 units	Chemistry 1.....3 units
(General descriptive chemistry with laboratory work.)	
General Biology.....3 units	General Biology.....3 units
(Zoölogy 1.)	
Electives.....2-5 units	Electives.....2-5 units
(See list of advised electives on page 247.)	

* The numbers refer to courses described in the catalogue of this University. Each "unit" of credit is represented by one hour of lecture or recitation, or by two hours of laboratory work requiring outside study, or by three hours of laboratory work each week for a half year.

SOPHOMORE YEAR

First Semester

Chemistry 3a.....3 units

(Qualitative and quantitative analysis.)

Physics 6.....3 units

(The laboratory work is quantitative in character.)

German 2.....3 units

(German may be omitted by students possessing a reading knowledge of the language.)

Electives.....7-10 units

Second Semester

[Chemistry: See Elective

Courses]

Physics 6.....3 units

German 2.....3 units

Electives.....7-10 units

Students who intend to complete the college course and to become candidates for the Bachelor's Degree in Arts or in Science before entering the Medical School, are advised to pursue the following course of study:

FRESHMAN YEAR

First Semester

English 1.....3 units

German 1.....3 units

(German may be omitted by students possessing a reading knowledge of the language.)

Chemistry 1.....3 units

Electives.....7-10 units

Second Semester

English 1.....3 units

German 1.....3 units

Chemistry 1.....3 units

Electives.....7-10 units

SOPHOMORE YEAR

First Semester

English 11.....3 units

German 2.....3 units

Chemistry 3.....3 units

Electives.....7-10 units

Second Semester

English 11.....3 units

German 2.....3 units

Chemistry 4.....3 units

Electives.....7-10 units

JUNIOR YEAR

First Semester

General Biology.....3 units

(Zoölogy 1.)

Physics 6.....3 units

(Students especially interested in mathematics and physics are advised to elect, in place of Physics 6, Physics 1 and 2, to which courses Mathematics 11, 12, 13, 14, and 15 are prerequisite.)

Electives.

Second Semester

General Biology.....3 units

(Zoölogy 1.)

Physics 6.....3 units

Electives.

SENIOR YEAR

First Semester

Electives 16 units

Second Semester

Electives 16 units

List of Elective Collegiate Courses advised for students preparing to enter the Medical School:

- Anatomy 1. (Anatomy of Vertebrates.)
- Botany 3. (Plant Physiology.)
- Chemistry 5. (Lectures in Organic Chemistry.)
- Chemistry 7. (Laboratory work in Organic Chemistry.)
- Chemistry 13. (Elementary Physical Chemistry.)
- Chemistry 20. (Physical Chemistry.)
- Drawing 1. (Free Hand Lettering and Instrumental Drawing.)
- Drawing 2. (Free Hand Drawing.)
- Economics 1. (Elements of Economics.)
- French 1 (or 1-a) and 2.
- History (including Government).
- Latin. (Any course for which the student is fitted.)
- Greek. (Any course for which the student is fitted.)
- Mathematics 11 and 12.
- Philosophy 4. (History of Philosophy.)
- Sociology 1. (General Sociology.)
- Zoölogy. (Any course for which the student is fitted.)

ADMISSION TO ADVANCED STANDING

Applicants for admission to advanced standing (1) must furnish evidence that the foregoing terms of admission in regard to preliminary training have been fulfilled, (2) must show that courses equivalent in kind and amount to those given in this school, in the year or years preceding that to which admission is desired, have been satisfactorily completed, and (3) must pass satisfactory examinations in those subjects in the work for which they have asked credit. These examinations may be waived at the discretion of the instructor in charge of the corresponding course. Students from schools the entrance requirements of which are not equivalent to those of this school must take examinations in all subjects for which they ask credit. The applicant must have studied as a matriculated medical student in an approved medical school for a period of time at least equal to that already spent by the class which he seeks to enter.

(a) Students who have received from an approved medical school* credit for courses equivalent to those of the first year of this school in anatomy, chemistry, and physiology, will be admitted to the second year class without examination but, at the discretion of instructors, may be examined in these subjects at the end of the second year. (b) Students who have received from an approved medical school credits in anatomy, chemistry, physiology, pharmacology, bacteriology and pathology will be permitted (see 3 above) to enter the third year class, but no student may enter with a condition in any of these subjects. (c) Students who have received credit for courses in anatomy, chemistry, physiology, pharmacology, bacteriology and pathology, equivalent to those given in this school, may (see 3 above) enter the fourth year class without examination in subjects of the third year, provided they have received credit for courses in medicine, surgery, and obstetrics equivalent to those of the third year, but, at the discretion of the instructors, may be examined in these three subjects at the end of the fourth year.

Graduates of other medical schools, who are permitted to enter this school with advanced standing as candidates for the degree, are required (a) to pay the fees charged for the years in which they are in attendance, and (b) to fulfill the requirements for graduation, as stated in this announcement.

Applicants for advanced standing are required to furnish, in addition to the credentials required for admission, credentials from the medical school in which they have studied, enumerating the completed medical courses for which credit is asked and stating the number of completed years of medical work. A blank form of application for advanced standing will be furnished upon request.

STANDING AND PROMOTION

To enter any course the student must have taken the required courses in the subjects which supply the preliminary preparation for that course. The subjects preliminary to each course are defined in the description of these courses.

Examinations are held at the completion of each course and at other times as determined by the instructors. A student who is

* An approved medical school has entrance requirements equivalent to those of this school.

conditioned must take a special examination at the time appointed for such examination. (See Calendar.)

Students who at the end of the first or second year have recorded against them failures in any two of the following subjects, anatomy, histology with neurology, physiology, biological chemistry, pharmacology, pathology, or bacteriology will be advised to withdraw from the school.

No student will be permitted to undertake the work of the third year who has an unabsolved failure in any one of the subjects named above.

A student who at the end of the third year has failed in any two of the following subjects, medicine, physical diagnosis, clinical pathology, surgery, surgical pathology or obstetrics will be advised to withdraw from the school.

No student will be permitted to undertake the work of the fourth year who has unabsolved failures in physical diagnosis, clinical pathology or surgical pathology.

The minimum time in which the courses required for the degree of Doctor of Medicine can be taken is four years.

Graduates of Washington University Medical School are exempt from the first and second examinations of the Conjoint Board of the Royal College of Physicians of London and the Royal College of Surgeons of England.

REQUIREMENTS FOR GRADUATION

The candidate must be more than twenty-one years of age and of good moral character. He must have attended not less than four annual courses of medical instruction as a matriculated medical student, the last of which has been in this school. He must have taken all obligatory courses offered here, or their equivalent, and have received a satisfactory grade in the work of the entire four years. He must have discharged all indebtedness to the school.

He must by the first of May have notified the Dean, in writing, of his intention to present himself as a candidate for the degree.

At the end of the fourth year every student who has fulfilled these requirements will be recommended for the degree of Doctor of Medicine.

PRIZES

TWO GEORGE F. GILL PRIZES are offered to the students of the School, viz.:

1. One prize of fifty dollars to be awarded at the end of the first year to the member of the class who shall have made the highest grade in anatomical work.

2. One prize of fifty dollars to be awarded to the member of the graduating class, of high general standing, who shall have done especially good work in the department of Pediatrics.

ALUMNI ASSOCIATION PRIZE. For the purpose of encouraging an interest in scientific work on the part of the young men who have just been graduated, the Alumni Association of the Medical School has decided to give each year, at the graduating exercises, a prize of fifty dollars to the graduate of the year before, who presents the best thesis on a medical or surgical subject.

In 1915 the prize will be given on the following conditions:

1. While it is not desired to restrict the choice of the subject, the award will be given only to such papers as show evidence of original work. Ordinarily, reports of interesting or unusual cases, unless they be included as part evidence in the consideration of some more general topic, will not meet the approval of the committee. Likewise, literary summaries, unless they bring out some new and important facts, are not desired. Besides the fields of medicine, surgery, and specialties, original work may be done in anatomy, histology, physiology, physiological chemistry, pathology, hygiene, and bacteriology.

2. The candidate's thesis must be signed with a *nom de plume* and placed in a sealed envelope. This, together with a sealed letter containing the *nom de plume*, name, and address of the candidate, must be sent to the Registrar of the Medical School not later than April 1, 1915.

The committee reserves the right to publish any of the theses submitted in the contest, in the Bulletin of Washington University. This will not preclude simultaneous publication elsewhere.

3. All inquiries concerning this contest should be directed to the Registrar of the Medical School.

WINNERS OF PRIZES AND HONORS, 1912-13

GILL PRIZE IN ANATOMY

Paul Huston Stevenson

GILL PRIZE IN DISEASES OF CHILDREN

George Edwin Hourn

SCHOLARSHIP

The GEORGE F. GILL SCHOLARSHIP, instituted in memory of the late Dr. George F. Gill, Clinical Professor of Pediatrics, entitles the holder to remission of the tuition fee to the amount of the Scholarship, namely \$100.

FEES AND EXPENSES

TUITION FEES. Before registration each student will be required to pay a matriculation fee of five dollars, which is payable but once during the course of four years.

A charge of three dollars will be made against each student who fails to register before October 6, 1914.

The tuition fee is \$150, payable in two equal installments, at the beginning of the first trimester and on February 1.

There are no laboratory fees.

All fees and charges are payable in advance at the office of the Treasurer in University Hall. If not paid within thirty days after the time they become due, the student, by order of the Corporation, will be suspended from all privileges of the University until the fee is paid. No rebate of the tuition fee can be made for absence, whether such absence occurs at the beginning, middle, or end of the trimester, except in cases of prolonged illness certified to by a physician. Checks should be made payable to Washington University.

DIPLOMA FEE. At the completion of the course a diploma fee of five dollars will be charged.

RENTAL OF MICROSCOPES. Each student in the fourth year who does not own and use his own microscope will be charged a fee of \$5.00 for the use of a microscope, which will be rented him by the University, and for which he will be responsible. He must also provide his own hemocytometer.

BREAKAGE DEPOSIT. Each student is required to pay to the Treasurer of the University ten dollars to cover breakage. Any balance of this deposit will be returned at the end of each year. No student will be granted the use of the laboratories or apparatus of the school until the required deposit has been paid.

FEES FOR GRADUATE STUDENTS. Graduates will be charged the matriculation fee of five dollars, and a tuition fee in proportion to the amount of work taken during the session. The usual charge for one course is from \$25 to \$50. Graduates who may wish to take special courses of study are requested to make written application to the Registrar, stating plainly the nature of the work they wish to do and the length of time they expect to be in attendance.

SUMMARY OF EXPENSES FOR THE FOUR YEARS' COURSE

The actual fees charged for each year's attendance at the school are as follows:

	First Year	Second Year	Third Year	Fourth Year
Matriculation Fee.....	\$ 5.00	.....	.....	.....
Tuition.....	150.00	\$150.00	\$150.00	\$150.00
Diploma Fee.....	.....	.....	.....	5.00
Total.....	\$155.00	\$150.00	\$150.00	\$155.00

GENERAL PLAN OF INSTRUCTION

Instruction in the Medical School is given to candidates for the degree of Doctor of Medicine and to graduate students who may or may not be candidates for higher degrees. Courses which are open to students in the University, not candidates for the degree of Doctor of Medicine, are assigned a value in units to indicate the credit allowed by the University.

The course of study required of candidates for the degree of Doctor of Medicine extends over a period of at least four academic years, and is designed for students who have already received certain preliminary training. Believing that a broader education is essential to the successful study and practice of medicine, the school has increased its requirements for entrance, and the course of study has been correspondingly rearranged. As stated in detail on page 51, the student on entering the school must have completed two years of college work, which must include a knowledge of Chemistry, Physics, Biology, and of the English and German languages. An entrance condition in German is allowed, but must be removed before entering the second year. With this preliminary training, some of the work previously done in the Medical School, such as Inorganic Chemistry and Qualitative Analysis, may properly be omitted, and the time thus gained is devoted to a fuller and more thoughtful study of the subjects directly pertaining to medicine.

It is the aim of the school to prepare its students to become practitioners of medicine, the experience gained in the laboratories and hospitals serving as the basis for medical training and knowledge. The order of studies is arranged so that the more fundamental are placed in the beginning of the course.

The Academic year, extending from the last week of September to the first week in June, is divided into trimesters, each of about eleven weeks. The required work keeps the student occupied in laboratory, class-room, hospital, or dispensary about thirty hours each week, and demands outside preparation. As far as possible the work is so arranged as to leave free several half days each week, during which time those students who can profitably undertake extra work are encouraged to take courses in the subjects of their greatest

interest. Suitable optional courses are offered by each department in the School.

The curriculum of four years has been divided into three distinct periods, this division being based on the requirements of the student at a given time in his medical course.

The first period includes the first year and the first and second trimesters of the second year. During this time, the student studies the fundamental sciences of anatomy, biological chemistry, physiology, pathology, and bacteriology. For this first period, the whole interest of the student is concentrated on the fundamental essentials of medical education, and every effort is made to train the faculty of critical and independent observation. Anatomy and chemistry are studied during the first year. In the last trimester of this year, the study of physiology begins, and bacteriology is studied in preparation for work in pathology. For the first trimester of the second year practical anatomy is completed, while during the first two trimesters physiology, pharmacology, and pathology are studied. In the last trimester of this period, courses are introduced in physical diagnosis, including case taking and observation clinics, and in surgical technic, in preparation for the clinical work of the second period.

The second period, extending from the third trimester of the second year through the second trimester of the fourth year, is devoted primarily to clinical work. For the first half of this period, the student serves as student assistant in the out-patient departments of medicine, surgery, or obstetrics, and attends clinics, lectures, and recitations. This work in the out-patient departments occupies from 6 to 8 hours per week. Patients are examined by the student and treated under the direction of the attending staff. During the second half of this period, the students are assigned to the wards of the Hospital, and each section of the class serves a full trimester in the wards of medicine, surgery, or obstetrics and pediatrics. During the second period, courses are given in clinical microscopy, neurological pathology, surgical pathology, and experimental operative surgery. Special emphasis is placed upon the study and treatment of patients. The patient is used as a means of demonstration in clinics and bedside instruction, and relatively little attempt is made to formulate information in lectures. Clinical work in the specialties is confined to this second half of the second period.

The third and last period consists of the third trimester of the fourth year. This elective period becomes operative with the class

graduating in 1916. For the classes of 1914 and 1915, the clinical work will be confined to the third and fourth years. During this last period, there is no prescribed curriculum. The student must gain credit for 300 hours of work, 150 of which must be spent in some one department. It is expected that, during this period, the students will avail themselves of the opportunity to further any special interest they may have in any one of the fundamental sciences, or clinical subjects, and that some few may attempt a certain amount of original work. For details as to the assignment of hours, the general schedules and the departmental statements should be consulted.

COURSES OF INSTRUCTION *

Anatomy

Robert J. Terry, M.D.	Professor of Anatomy
Paul Y. Tupper, M.D.	Clinical Professor of Surgery
Victor E. Emmel, Ph.D.	Associate in Anatomy
Charles H. Danforth, Ph.D.	Instructor in Anatomy
Frank H. Ewerhardt, M.D.	Assistant in Anatomy

The department offers courses presenting the results of anatomical science, gives training in the methods of investigation, and affords opportunity for research in several branches of anatomy.

Students are disciplined in habits of careful observation, are taught how to make use of the literature of anatomy, and are carefully trained in such technical processes as dissection, microscopical examination, the preparation of microscopical objects and anatomical drawing. The student's knowledge of anatomy is gained chiefly from laboratory experience under conditions which permit and encourage independent work and thought.

Courses in human anatomy are offered to meet the requirements of medical students, those facts and principles being specially emphasized which direct attention to physiological and pathological aspects and the application of anatomy in medical and surgical practice.

The elective and optional courses are intended chiefly to provide facilities for advanced study (1) in purely anatomical subjects, (2) in the application of anatomy in medicine.

First Year

1. *Anatomy of Vertebrates*. Selected types furnish material for dissection and microscopical study. Lectures on the results of comparative anatomical science and on the modern theories relating to organized structure accompany the laboratory course. One lecture or recitation and five hours of laboratory work a week throughout the year. Total 198 hours. Credit 6 units.

Professor Terry, Dr. Danforth

* The titles of all optional and elective courses are printed in italics.

2. **EMBRYOLOGY.** An outline of human development in which special attention is given to early ova, implantation and formation of foetal membranes, attainment of body form, and post-natal changes. Microscopic preparations provide material for the study of germ cells in man and other animals; maturation, fertilization, and segmentation in the mouse; and the development of germ layers and organs in the chick and pig. The microscopic work is supplemented by dissections of pig embryos and study of human embryos, by models and demonstrations. The significance of rudimentary structures and of certain congenital malformations is considered. Emphasis is laid upon the bearing of genetic studies. Nine hours a week in the first trimester. Total 108 hours.

Dr. Danforth

3. **HISTOLOGY.** This course offers a grounding in the knowledge of the histological structure of the human body and includes some instruction in microscopical technique. The subject embraces microscopical anatomy, histogenesis and functional significance of the component structural elements of the tissues and organs. Students are provided with collections of selected histological preparations. Lectures, demonstrations and quizzes are correlated with the laboratory work. Three mornings a week in the first trimester. Total 144 hours. Credit 6 units.

Dr. Emmel

4. *Cytology.* Facilities are offered in this course for an intensive study of cells and their relation to current cytological problems. The subject includes the finer structure and functional correlation of the fundamental nuclear and cytoplasmic elements, their rôle in the reaction of cells to normal and abnormal environment, their differentiation with respect to the specialization of vital activities in the organism, and their significance in such phenomena as cell proliferation, growth, repair, cytomorphosis, development and heredity. The subject matter is intended to serve as an introduction to histological research. Prerequisite, Anatomy 1, 2, 3, and Physiology 1, or the equivalents. Six hours of laboratory work in the third trimester. Total 66 hours. Credit 2 units.

Dr. Emmel

5. **NEUROLOGY.** A laboratory and lecture course on the development, macroscopic and microscopic anatomy of the central nervous

system and sense organs. Collections of sections through the brain stem, special Weigert and Golgi preparations, wax models, embryological and adult material for dissection are provided. The gross dissection is accompanied by a study of neuro-histology, of fiber tracts, nuclei, the interrelations of the neurone systems and functional significance of special organs. Nine hours a week during the second trimester. Total 90 hours.

Professor Terry, Dr. Emmel

6-7. HUMAN DISSECTION. The course offers opportunity for the systematic study of the structure of the human body. Each student is provided with material for the preparation and study of the muscles, joints and skeleton; the viscera; the vascular system and peripheral nerves. Lectures and demonstrations on certain aspects of human anatomy serving to systematize the observations made in the laboratory and to direct attention to human structure in relation to function, pathological change, medical and surgical application, variation and heredity are given from time to time during the year. Nine hours a week throughout the year. Total 297 hours. Credit 10 units.

Professor Terry, Dr. Danforth, Dr. Ewerhardt

Second Year

8. TOPOGRAPHICAL ANATOMY. Six hours a week in the first trimester are spent in laboratory study of the position and relations of organs. Sections, museum preparations, and models are used as material for study. Total 72 hours.

Professor Terry

Third Year

9. APPLIED ANATOMY. The conventional surgical regions are considered and the skeleton, muscles, bloodvessels, nerves, and lymphatics are discussed from the surgeon's point of view. Lectures and demonstrations two hours during the first trimester. Total 24 hours.

Professor Tupper

10. *Graduate Course in Gross Anatomy.* Dissection of the human body, study of preparations and sections. Hours to be arranged. Fee \$25.00.

Professor Terry

11. *Conferences in Anatomy.* One hour a week during the year.
Professor Terry

12. *Conferences in Osteology.* One hour a week in the second trimester.

Dr. Danforth

13. *Physical Anthropology.* Three hours of laboratory work with assigned reading. The objects of this brief course are to familiarize the student with the methods used in the study of physical anthropology and to awaken interest in research in this branch of anatomy. Total 33 hours. Prerequisite, Anatomy 1, 6-7.

Professor Terry

14. *Anatomy of the Living Body.* In this course of lectures with demonstrations it is intended to treat collectively of those anatomical features which can be observed by inspection and palpation of the living body. First trimester. Prerequisite, Anatomy 1, 6-7.

Professor Terry

15. *Anatomical Technology.* Opportunity is afforded for gaining experience in the ordinary methods of preparing material for study and for learning some of the special technical processes. Among the methods undertaken are: preservation of gross material, color injection, preparation of bones, corrosion, the usual technique of fixing, embedding and staining microscopical objects and also some of the special methods, including the technique of cultures of living tissues. Six hours of laboratory work in the third trimester. Total 66 hours.

Dr. Emmel

16. *Investigation.* The department offers facilities for investigation in several branches of anatomical science and those qualified are encouraged to undertake research. Hours and credit to be arranged.

17. *Anatomy Seminar.* For members of the staff and investigators. Once a week throughout the year.

Biological Chemistry

Philip A. Shaffer, Ph.D. . . .	Professor of Biological Chemistry
Walter R. Bloor, Ph.D. . . .	Associate in Biological Chemistry
W. McKim Marriott, M.D. . .	Instructor in Biological Chemistry

1. *Analytical Chemistry.* A laboratory course designed to acquaint the student with those principles of gravimetric and especially volumetric analysis, which form the basis for quantitative chemical work in the medical sciences. Principles and quantitative technique are emphasized rather than the study of applied analytical methods which are considered in Course 3. The course is required of those students who enter without credit in volumetric analysis and is optional to others. First trimester five hours a week. Total 60 hours.

Dr. Bloor and Dr. Marriott

2. **ORGANIC CHEMISTRY.** A short course of lectures and recitations intended to acquaint the student with the elements of the chemistry of carbon compounds, preparatory to Course 3. First trimester, three hours a week. Total 36 hours.

Dr. Marriott

3. **BIOLOGICAL CHEMISTRY.** A systematic course of lectures, recitations, conferences and laboratory work covering those portions of the subject which are of the greatest importance to the student of medicine. The laboratory work includes detailed study of the chemistry of fats, carbohydrates, and proteins; the synthetical preparation of a few organic substances; the analysis of the more important animal tissues and fluids; a study of the action of enzymes; the conduct of metabolism experiments by the student upon himself as illustrating some of the principles of nutrition; a study of the composition of important foods; and extended practice in chemical technique. During the latter part of the course, after reading the published records of original investigations, each student prepares a thesis upon a selected topic. So far as time permits the theses are presented to the class for discussion. Prerequisite: courses in chemistry required for entrance; Course 1 (Analytical Chemistry) and Course 2 (Organic Chemistry), or their equivalent. Second trimester, lectures and recitations, three hours, and laboratory, ten

63 hours a week. Third trimester, lectures and recitations, three hours, and laboratory, six hours a week. Total, lectures and recitations, 63 hours, and laboratory, 166 hours. Credit, 8 units.

Professor Shaffer, Dr. Bloor, and Dr. Marriott

166
229
240
469

4. *Advanced Work.* Courses of laboratory work and selected reading in Biological Chemistry will be arranged to suit individual needs.

5. *Research.* The facilities of the department are available to students qualified to undertake investigation in Biological Chemistry.

Physiology

Joseph Erlanger, M.D. . . . Professor of Physiology
Walter E. Garrey, Ph.D., M.D. . Associate Professor of Physiology
Robert A. Gesell, A.B. . . . Instructor in Physiology
Victor H. K. Moorhouse,* M.D. Instructor in Physiology and Pharmacology

1. *Bio-dynamics and General Physiology of Animals.* A course dealing with the physico-chemical analysis of tissue activity and animal reactions. The fundamental physiological properties of living organisms, such as irritability, conductivity, contractility, and automaticity will be studied with a view of determining how these properties are affected by varying the conditions of activity. Such factors as permeability, osmotic pressure, action of electrolytes, non-electrolytes and colloids, effects of gravity, light, heat and electric currents will be considered. While an elementary knowledge of physics, chemistry and biology is desirable it is not essential, as the laboratory work can be adapted to the preliminary training of the individual student. The course is open to students in the Department of Arts and Sciences (except Freshmen) and will be especially adapted to the needs of those preparing for medicine. Two conferences and two laboratory periods occupying two half days. Second half of the year. Credit 4 units.

Professor Garrey

First and Second Years

2. *PHYSIOLOGY.* Lectures. This course is designed especially to meet the needs of students of medicine, but is open to properly pre-

* On leave of absence, 1913-14.

pared students in the College. It consists of lectures, demonstrations and recitations covering systematically the subject of human physiology. As far as practicable the lectures are descriptive of experiments demonstrated in the lecture room. Free use is made of charts, models, lantern slides and records for the purpose of bringing to the attention of the student the experimental basis of those principles of the subject that do not lend themselves readily to experimental demonstration. Weekly recitations are held upon the subject matter of the lectures. The lectures begin in the third trimester of the first year and are continued during the first and second trimesters of the second year. Properly prepared students in the College and, under exceptional circumstances, medical students will be permitted to begin the course at the opening of the college year. The course is so arranged that students are enabled to acquire some knowledge of anatomy, embryology, histology, neurology, and biological chemistry before the physiological aspects of the related topics are considered. The following subjects are covered in the lectures: muscle and nerve, central nervous system, senses, blood, circulation, respiration, secretion, digestion, nutrition, and reproduction. Only those students will be admitted to the course who have completed or have begun the study of anatomy, histology, and biological chemistry. Total 120 hours. Credit 8 units.

Professor Erlanger, Professor Garrey,
Mr. Gesell, and Dr. Moorhouse

Second Year

3. PHYSIOLOGY. Laboratory Course. This course must be taken in conjunction with Physiology 1. The experiments are so arranged as to serve at one and the same time to illustrate the fundamental principles of physiology and to familiarize the student with the more important bio-physical methods employed in experimental physiology and medicine. The class works in groups of two. Each group has its individual table, which is supplied with all the apparatus necessary for the performance of the general experiments. To the groups is assigned in rotation the apparatus needed for the performance of special experiments. As far as practicable the students serve as subjects of the special experiments and study upon themselves by quantitative methods certain phases of the physiology of the circulation, respiration, central nervous system, vision, etc. The instruction in the laboratory is largely individual. Recitations and conferences

120
120
240

are held once a week, at which the principles and the results of the experiments are discussed and criticized. Students are required to make careful notes of the experiments. The first trimester of the second year. Total 120 hours. Credit 4 units.

Professor Erlanger, Professor Garrey, Mr. Gesell

4. *Demonstration Methods.* This course is designed primarily for students preparing to teach advanced physiology, and who may desire a wider experience in experimental physiology than can be gained in Course 2. It consists mainly of experiments demonstrated in Course 2. The time and the amount of work are not limited, except that assistance must be arranged for by definite engagements.

5. *Research.* The facilities of the laboratory will be offered to qualified students for the investigation of their own problems or of problems which the department is prepared to suggest.

6. *Journal Club.* Meetings of the Journal Club are held once a week, at which papers of physiological interest appearing in the current journals are discussed. This course is open to properly prepared students only. Once a week throughout the year. Credit 2 units.

Pharmacology

Dennis E. Jackson, Ph.D., M.D. Associate in Pharmacology
Victor H. K. Moorhouse,* M.D. Instructor in Physiology and Pharmacology

1. PHARMACOLOGY. (a) Lectures, stereopticon illustrations, recitations and demonstrations covering the general field of Pharmacology. It is the intention to make this course as thorough and complete as the time allotted to the subject and the advancement of the students will permit. Third trimester of the second year. Courses a and b are taken together by the regular medical students, but Courses a and 4 may be taken alone by special students. Prerequisite, Anatomy, Neurology, Biological Chemistry, Physiology 1 and 2. Total 44 hours. Credit 3 units.

Dr. Jackson

* On leave of absence, 1913-1914.

(b) **LABORATORY COURSE.** Students work in groups of four or five. In so far as is practicable students study in their own experiments all the pharmacological actions which can be demonstrated by ordinary laboratory processes. The laboratory work is almost wholly carried out on mammalian forms. Complete records of each experiment, giving all the data which do not lend themselves readily to graphic methods, are kept and filed together with the tracings in permanent note books. Complete apparatus for artificial respiration, time records, etc., is supplied. Two days each week during the third trimester of the second year. Total 66 hours. Credit 2 units.

Dr. Jackson, Dr. Moorhouse

2. *Advanced Course.* This consists of an experimental study of the pharmacological action of rare or selected drugs. Opportunity is given for a study of the methods and processes ordinarily used in pharmacological laboratories. Hours and credit to be arranged.

Dr. Jackson

3. *Research.* The facilities and equipment of the laboratory are open to those who wish to carry out original investigations. Special efforts have been made to secure a full collection of drugs. Hours and credit to be arranged.

Dr. Jackson

4. *History of Pharmacology.* This course consists of a series of six lectures; it is intended primarily for the Second Year Class but is open to all others who care to attend. Each lecture is fully illustrated by means of lantern slides. The course will be given in relation to Course 1 (a) at times convenient for students of the Second Year Class.

Dr. Jackson

Pathology and Bacteriology

Eugene L. Opie, M.D.	Professor of Pathology
Ernst F. Tiedemann, M.D.	Associate Professor of Bacteriology
George M. Smith, M.D.	Associate in Pathology
Walter S. Thomas, M.D.	Instructor in Pathology
L. B. Alford, M.D.	Assistant in Pathology

First Year

1. BACTERIOLOGY. Bacteriology will be given to the First Year Class in the third trimester. The course is a general survey of the entire field of bacteriology from the biological point of view. Especial attention is given to the subjects of fermentation, putrefaction and toxin production, sterilization and disinfection, the nature of infection and its effects. In the laboratory the methods of observing and staining bacteria and methods of bacteriological diagnosis are taught. Total 121 hours.

Professor Tiedemann, Dr. Thomas, Dr. Alford

Second Year

2. PATHOLOGY. Prerequisite courses for Pathology are represented by the required work of the first year in Anatomy, Biological Chemistry and Bacteriology. Graduate students in the Department of Arts and Sciences whose major work lies in Biology may elect Pathology as a minor at the discretion of the departments concerned. The course is subdivided as follows:

(a) LECTURES AND LABORATORY WORK. Pathology is taught during the first two thirds of the second year. Instruction includes lectures, demonstrations, recitations, and work in the laboratory. General Pathology will be taught by lectures given in association with study of the gross and histological characters of the lesions concerned and will be illustrated by such experiments as are suited to class instruction. Pathological Histology will be studied by means of sections stained for microscopic examination by the student, supplemented by specially prepared specimens which are loaned; the student is urged to describe and to draw the lesions he finds. Lectures and laboratory work, 11 hours a week in the first trimester and 14 hours in the second trimester. Total 272 hours.

Professor Opie, Dr. Smith, Dr. Thomas, Dr. Alford

(b) RECITATIONS. The work of each week is reviewed by a recitation, in which effort is made to determine how accurately the student has grasped the subjects studied in the laboratory and their relation to general considerations not adapted to demonstration before the class. One hour a week. Total 22 hours.

Professor Opie, Dr. Smith

(c) CONDUCT OF AUTOPSIES. Whenever material is available autopsies are performed before the class. Students are instructed in the methods of post-mortem examination and in small groups have opportunity to practice the methods employed. Special attention is given to the preparation of orderly records.

Professor Opie, Dr. Smith, Dr. Thomas, Dr. Alford

(d) GROSS PATHOLOGY. Fresh pathological tissues are demonstrated to the class divided into small sections, and students study by personal contact the lesions which occur. Fresh material is supplemented by organs preserved as museum specimens. By means of sections prepared by freezing, the relation of gross to histological changes is defined. One or two hours once a week. Total 44 hours.

Dr. Smith, Dr. Thomas, Dr. Alford

3. LECTURES ON INFECTION AND IMMUNITY. Lectures on the nature of infection and immunity will be given in the first trimester of the Second Year. Total 24 hours.

Professor Tiedemann

4. *Study of Serum Reactions.* The changes which occur in blood as the result of immunization will be studied in the laboratory. Students will perform reactions which demonstrate the existence of amboceptor and complement, precipitins and other substances; they will determine the strength of an agglutinating serum, and will study the serum reactions used for the diagnosis of syphilis. Laboratory work, 2 hours a week during six weeks of the first trimester. Total 12 hours.

Professor Tiedemann, Dr. Thomas

5. CLINICAL AND PATHOLOGICAL CONFERENCE. The specimens from autopsies are studied with reference to the clinical histories and the gross and microscopic anatomy one hour once a week during the Fourth Year.

6. *Special Study and Research.* Those who have the training necessary for advanced work are encouraged to undertake special study of certain limited topics, for example, surgical pathology, the pathology of special organs or tissues, etc. Opportunity will be afforded for special research in histological pathology, experimental pathology, and bacteriology. The laboratory is provided with the apparatus usually employed in such investigation.

Medicine

George Dock, M.D.	Professor of Medicine
Washington E. Fischel, M.D.	Clinical Professor of Medicine
Francis R. Fry, M.D.	Clinical Professor of Neurology
Elsworth Smith, Jr., M.D.	Clinical Professor of Medicine
G. Canby Robinson, M.D.	Associate Professor of Medicine
Albert E. Taussig, M.D.	Associate in Medicine
Sidney I. Schwab, M.D.	Associate in Neurology
Malcolm A. Bliss, M.D.	Instructor in Psychiatry
Walter Baumgarten, M.D.	Instructor in Medicine
Ralph W. Mills, M.D.	Instructor in Medicine
Frederic M. Hanes, M.D.	Instructor in Neurology
Fred Fahlen, M.D.	Assistant in Medicine
Louis H. Hempelmann, M.D.	Assistant in Medicine
Walter Fischel, M.D.	Assistant in Medicine
Leo C. Huelsmann, M.D.	Assistant in Medicine
Jerome E. Cook, M.D.	Assistant in Medicine
Richard H. McBaine, M.D.	Assistant in Medicine
Hugh McCulloch, M.D.	Assistant in Medicine
Hans Lisser, M.D.	Assistant in Medicine

Second Year

1. **PHYSICAL DIAGNOSIS.** Demonstrations and practical exercises in the technique of physical diagnosis and the signs elicited by inspection, palpation, percussion and auscultation of the circulatory and respiratory organs in health. The required reading must be done out of class hours. 44 hours.

Professor Robinson

2. **MEDICINE. RECITATION IN MEDICINE.** The beginning of a course of recitations based upon the reading of a prescribed text-book

of medicine. For 1914-15: Diseases of the Digestive System. Instruction in preparation of clinical histories is given. Students attend the Propaedeutic Clinic and the Medical Dispensary. For a description of these courses, see Medicine 6 below. Total 55 hours.

Professor Dock

3. THERAPEUTICS. A course designed to give the student a practical knowledge of the methods, the various drugs and agencies employed in the treatment of disease. The general conditions under which each drug is used in pathological conditions, and its application are fully discussed. The action of such drugs as are indicated in certain diseases, and the best preparation to be used, are thoroughly considered. 22 hours.

Dr. Fahlen

Third Year.*

4. PHYSICAL DIAGNOSIS. Practical work and demonstrations with special reference to physical signs in patients with diseases of the organs of the thorax and abdomen. Required reading must be done out of class hours; occasional oral and written reviews are held; records and diagrams of the results of the work must be made. Two hours a week throughout the year. The class is divided into sections. 66 hours.

Dr. A. E. Taussig, Dr. Cook, Dr. McCulloch

5. CLINICAL CHEMISTRY AND MICROSCOPY. A laboratory course in methods of microscopic, bacteriological, and chemical diagnosis. The subjects are the urine, blood, stomach contents, sputum, faeces, and puncture fluids. Material is obtained from cases in the hospitals and dispensaries. The work is almost wholly practical and considerable reading is required outside of laboratory hours. Microscope and haemocytometer are furnished to be retained for use throughout the course. 88 hours.

Professor Robinson

6. MEDICINE. The course is composed of the following subdivisions:

(a) RECITATIONS IN MEDICINE. Continuation of Course 2. In these two courses, completed at the end of the third year, the aim

*The second year class of 1914-15 will begin the work here assigned to the third year in the third trimester of the second year.

is for the student to gain a theoretical knowledge of the most important internal diseases according to the current classification. Diseases that can be thoroughly studied in the clinics are passed over rapidly, with special attention to etiology and pathology. 66 hours.

Dr. Cook, Dr. McCulloch

(b) MEDICAL DISPENSARY. Clinical work in which each student serves as a clinical clerk 6 hours a week for 11 weeks. Students take histories, act as clinical clerks, make examinations of blood, sputum, secretions and excretions, and assist in other details of out-patient work. Two hours, three times a week, one trimester. 66 hours.

Professor Robinson, Dr. Mills, Dr. W. Fischel, and Assistants

(c) PROPAEDEUTIC CLINIC. The observation and interpretation of symptoms and signs in ward and dispensary patients, with special reference to pathological physiology and its relation to diagnosis. Pathological secretions and excretions, fluids, and other specimens derived from patients are studied in connection with other features of disease. One hour, once a week throughout the year. 33 hours.

Professor Dock

(d) CLINICAL AND PATHOLOGICAL CONFERENCES.—The specimens from autopsies on medical patients are studied with reference to the clinical histories and the gross and microscopic anatomy. 33 hours.

Professor Dock, Dr. Smith, and Dr. Thomas

7. *Advanced Work in Laboratory Diagnosis.* An elective course for those qualified. Undergraduates who can devote at least two trimesters to the work and graduates in medicine with the necessary previous training who wish to investigate problems in clinical pathology are eligible. Hours to be arranged.

Professor Robinson

8. DIETETICS. Lectures and recitations upon foods, beverages, and condiments in health and disease. 11 hours.

Dr. Mills

9. NEUROLOGY. The course in Neurology is composed of the following subdivisions:

(a) NEUROPATHOLOGY. Following a résumé of neural anatomy, the gross and microscopic lesions of disease of the nervous system are

studied, with practical exercises in the examination, preservation, and description of diseased tissues. 22 hours.

Dr. Hanes

(b) CLINICAL NEUROLOGY AND PSYCHIATRY, INTRODUCTORY COURSE. Lectures and demonstrations on the clinical anatomy and physiology of the nervous system and allied subjects. Carefully prepared histories of actual cases will be used to illustrate the subjects which have been touched upon. 22 hours.

Dr. Schwab

(c) NEUROLOGICAL DISPENSARY. Exercises in the methods of diagnosis and treatment of nervous diseases, including electro-diagnosis and treatment. Two hours, once a week during one trimester. Total 22 hours.

Dr. Schwab and Dr. Hanes

Fourth Year

10. MEDICINE. The course is subdivided as follows:

(a) MEDICAL WARD WORK. The class is divided into three sections. Each student is in daily attendance three hours for eleven weeks. Ward rounds 9-10 a. m. daily. The students are assigned cases in the medical wards and are required to write the histories and make physical and laboratory examinations, write résumés with diagnosis and prognosis and describe treatment in detail. The patients are examined, the work of the section scrutinized and criticized, methods of diagnosis and treatment discussed and practiced, and special reading assigned. The specimens from autopsies on medical patients are studied with reference to the clinical histories and the gross and microscopic anatomy. See Medicine 6 (d). 150 hours.

Professors Dock, E. Smith, and Assistants

(b) CLINICAL CONFERENCES. One hour twice a week the Fourth Year Class meets at Washington University Hospital for a clinical conference. Patients whose cases have been investigated by students working in the wards are presented before the class, and diagnosis, pathology and treatment discussed from various points of view. Special attention is given to prescription writing in connection with actual patients. 66 hours.

Professors Dock and W. E. Fischel

11. **NEUROLOGY.** NEUROLOGICAL WARD AND OUT-PATIENT WORK. Practical exercises in diagnosis and treatment, including the diagnostic and therapeutic uses of electricity. 44 hours.

Dr. Schwab

12. **PSYCHIATRY.** Demonstrations of selected cases of mental disease. Two hours a week, five weeks. 10 hours.

Dr. Bliss

13. *Clinical Lectures on Internal Medicine.* St. Louis Mullanphy Hospital, one hour, once a week. 11 hours.

Professor E. Smith

14. *Graphic and Fluoroscopic Methods in Diseases of the Circulation.* A course is given at the Washington University Hospital to a limited number of students. 11 hours.

Dr. A. E. Taussig

15. *Diagnosis and Treatment of Diseases of the Digestive Tract.* (Oesophagus, Stomach, Intestines, Liver, Pancreas.) Including the new methods of diagnosis, such as fluoroscopy, oesophagoscopy, sigmoidoscopy, and the practical application of the stomach tube, etc. One trimester, once a week. 22 hours.

Dr. Mills

16. *Diagnosis and Treatment of Tuberculosis.* Practical exercises in diagnosis and treatment of tuberculosis with special reference to home treatment and sanatorium methods. Hours by special arrangement.

Professor Dock, Dr. Walter Fischel

17. *Electrocardiography.* A practical course in the clinical application of the string galvanometer, open to a limited number of those who have had Course 14 or to graduates or undergraduates with special experience in graphic methods in diseases of the circulation. Hours by special arrangement.

Professor Robinson

Dermatology

Martin F. Engman, M.D. . . . Clinical Professor of Dermatology

W. H. Mook, M.D. . . . Instructor in Dermatology

Third Year

(a) DERMATOLOGY. A lecture course in the Third Year on diseases of the skin and syphilis, by which the student will be prepared to understand Clinical Dermatology in the succeeding year. This course will be a general survey of the etiology, symptomatology, pathology and treatment of skin diseases and the history and pathology of syphilis. 11 hours.

Professor Engman

Fourth Year

(b) DERMATOLOGY. (Dispensary.) Clinics in which during the Fourth Year the student examines patients, makes diagnosis and outlines the treatment, under the supervision of an instructor. 33 hours.

Professor Engman, Dr. Mook

Medical Jurisprudence

Cleveland A. Newton . . . Instructor in Medical Jurisprudence

MEDICAL JURISPRUDENCE. A course given in the Fourth Year embraces medical evidence and testimony; expert testimony; dying declarations; rights of medical witnesses; establishing identity from living and dead bodies; sudden death from natural causes and by violence; criminal acts determined by medical knowledge; the legal relation of physician to patients and the public, as to the cause of death, prevention of disease and malpractice. 22 hours.

Mr. Newton

Surgery

Fred T. Murphy, M.D. Professor of Surgery

Norman B. Carson, M.D. . . . Clinical Professor of Surgery

Paul Y. Tupper, M.D. Clinical Professor of Surgery

Harvey G. Mudd, M.D. Clinical Professor of Surgery

Frank J. Lutz, M.D. Clinical Professor of Surgery

Ernest Sachs, M.D. Associate in Surgery

Willard Bartlett, M.D. Associate in Surgery

Harry McC. Johnson, M.D. . . . Associate in Genito-Urinary Surgery
 Vilray P. Blair, M.D. Associate in Surgery
 Nathaniel Allison, M.D. Associate in Orthopedic Surgery
 Malvern B. Clopton, M.D. . . . Associate in Surgery
 John R. Caulk, M.D. Instructor in Genito-Urinary Surgery
 Archer O'Reilly, M.D. Assistant in Orthopedic Surgery
 Arthur O. Fisher, M.D. Assistant in Surgery
 Barney Brooks, M.D. Assistant in Surgery

Second Year

1. INTRODUCTION TO SURGICAL PATHOLOGY AND SURGICAL TECHNIQUE. A laboratory course in which the process of repair incident to surgical wounds is studied in microscopical sections, and in gross specimens. The students test and practice the various methods of sterilization of hands, instruments, etc., using bacterial cultures as checks on these methods. Five hours weekly during the second trimester. 55 hours.

Professor Murphy and Dr. Brooks

*Third Year

2. SURGERY. The course is subdivided as follows:—

(a) SURGICAL OUT CLINIC. For one trimester, four times weekly, a third of the class serve as dressers in the Surgical Out Clinic. Cases are examined by the students and demonstrated to them. Under the supervision of the assistants, the students take histories, and apply dressings and bandages. 88 hours.

Professor Murphy, Dr. Sachs, and Assistants

(b) SURGICAL RECITATIONS. A weekly recitation during the year on assigned surgical reading. A standard text-book is followed and so far as possible the essentials not given in other courses are covered. 33 hours.

Dr. Clopton

(c) OPERATIVE SURGERY. A three-hour exercise given weekly during the third trimester. Actual case histories are discussed and the operation indicated from this discussion is performed on animals

* The second year class of the session of 1914-15 will begin the work, here assigned to the third year, in the third trimester of the second year.

by the students. The surgical technique is as rigid as in the operating room. 33 hours.

Dr. Sachs

(d) SURGICAL CLINIC. A weekly clinic throughout the year. See Course 4 (b). 33 hours.

Professor Murphy

(e) SURGICAL CONFERENCE. The pathology, diagnosis and treatment of surgical conditions as illustrated by ambulatory out-patient cases are discussed. A weekly exercise during the year. Total 33 hours.

Dr. Sachs and Dr. Fisher

(f) GENITO-URINARY SURGERY. See Surgery 5.

3. SURGICAL PATHOLOGY. A weekly exercise of two hours at which specimens from the operating room and from the museum are studied in gross and microscopically. When possible, case histories are presented with the specimens. 66 hours.

Professor Murphy, Dr. Sachs, Dr. Fisher, and Dr. Brooks

Fourth Year

4. SURGERY. The course is subdivided as follows:

(a) SURGICAL WARDS. For one trimester the student serves as assistant in the surgical wards from 9 a. m. to 12 m. five days a week.

Rounds are made from 9 to 10 a. m. Professor Murphy and the Surgical Resident discuss the general surgical cases.

Dr. Sachs makes rounds on the special neurological cases once a week.

Dr. Allison makes rounds from time to time on the special orthopedic cases.

The students, under the direction of the house staff, take case histories, make physical examinations, and the usual laboratory examinations. They assist at operations and with the anaesthetic, and do the routine surgical dressings. One day each week the group spends the period from 9 a. m. to 12 m. at the Saint Louis Children's Hospital where Dr. Allison demonstrates the orthopedic cases and Dr. Clopton the general surgical cases. Total 198 hours.

Professor Murphy, Dr. Sachs, Dr. Allison,
Dr. Clopton, and Dr. Fisher

(b) **SURGICAL CLINIC.** A weekly exercise throughout the year. Students of the Fourth Year examine the patients and present the cases for discussion. Students of the Third Year attend this exercise. 33 hours.

Professor Murphy

(c) **LECTURES ON SURGERY.** Once a week for three trimesters. Lectures will be given by different men on subjects of special surgical importance and interest. 33 hours.

Professor Lutz and others

5. **GENITO-URINARY SURGERY.** The course is divided as follows:

(a) **LECTURES AND RECITATIONS ON GENITO-URINARY SURGERY.** 11 hours. These lectures are given in the Third Year.

Dr. Johnson and Dr. Caulk

(b) **GENITO-URINARY OUT CLINIC.** The student serves as dresser in the Genito-Urinary Out Clinic six times a week for one half trimester under the same conditions as in Course 2. 33 hours.

Dr. Johnson and Dr. Caulk

6. **ORTHOPEDIC SURGERY.** Instruction is given at the Washington University Hospital and at the Saint Louis Children's Hospital as described in Course 4 (a). Special lectures on this subject will be given in Course 4 (c).

Dr. Allison

7. *Operative Surgery on the Cadaver.* Two hours weekly during the third trimester. Instruction is given by the actual practice of surgical operations performed on the cadaver. 22 hours.

Professor Tupper

8. *Advanced Operative Surgery.* Two-hour exercises are given once weekly during the second trimester. The students will be instructed in the technique of special operations by performing these operations on animals under rigid asepsis, and then will be encouraged to work at some unsolved surgical problem. 22 hours.

Dr. Bartlett

9. *Surgical Pathology.* Members of the Surgical Group of the Fourth Year Class take charge of the specimens which are received

at the Surgical Laboratory and under the supervision of the staff describe the gross material and make the microscopic diagnosis.

Ophthalmology

Arthur Eugene Ewing, M.D.	Clinical Professor of Ophthalmology
Adolf Alt, M.D.	Clinical Professor of Ophthalmology
Meyer Wiener, M.D.	Associate in Ophthalmology
Julius H. Gross, M.D.	Assistant in Ophthalmology
John Green, Jr., M.D.	Assistant in Ophthalmology

(a) OPHTHALMOLOGY. Eleven lectures are given in the third trimester of the Third Year. Practical instruction is given to small sections of the Senior Class twice weekly during one trimester. Under the supervision of instructors, the students take histories, make complete examinations, and carry out the routine treatment. 55 hours.

Professor Ewing, Dr. Wiener, and Assistants

(b) OPHTHALMOLOGICAL PATHOLOGY. A course in pathology of diseases of the eye, consisting of lectures, demonstrations, and recitations, is given during the second and third trimesters of the Senior year. 22 hours.

Professor Alt

Otology

John B. Shapleigh, M.D.	Clinical Professor of Otology
Albert F. Koetter, M.D.	Assistant in Otology

OTOLOGY. Lectures are given to sections of the Senior Class upon the anatomy of the ear and are followed by instruction in the methods of examination. Patients are assigned students, who are required to make examinations. 44 hours.

Professor Shapleigh and Dr. Koetter

Laryngology and Rhinology

Greenfield Sluder, M.D.	Clinical Professor of Laryngology and Rhinology
William E. Sauer, M.D.	Instructor in Laryngology and Rhinology
H. Edward Miller, M.D.	Assistant in Laryngology and Rhinology

LARYNGOLOGY AND RHINOLOGY. Eleven lectures are given during the third trimester of the Third Year. Small sections of the Senior Class receive practical instruction twice weekly in the out-patient clinics. 55 hours.

Professor Sluder and Dr. Sauer

Obstetrics and Gynecology

Henry Schwarz, M.D.	. . .	Clinical Professor of Obstetrics
Harry S. Crossen, M.D.	. . .	Associate in Gynecology
George Gellhorn, M.D.	. . .	Associate in Gynecology
Fred J. Taussig, M.D.	. . .	Associate in Gynecology
Henry J. Storrs, M.D.	. . .	Instructor in Obstetrics
Adolph G. Schlossstein, M.D.		Assistant in Obstetrics
William H. Vogt, M.D.	. . .	Assistant in Obstetrics
G. D. Royston, M.D.	. . .	Assistant in Obstetrics

Obstetrics

Third Year

1. OBSTETRICS. The course consists of recitations and demonstrations supplemented by laboratory work and clinical exercises throughout the year, based upon assigned reading of a prescribed textbook.

Instruction in the First Trimester covers the anatomy and physiology of the female organs of generation, including the anatomy of the pelvis, ovulation and menstruation, fertilization and development of the ovum.

The work of the Second Trimester deals with the physiology of pregnancy, labor and the puerperium; the signs and symptoms of pregnancy are studied in the dispensary and on house-patients; the mechanism of labor is demonstrated in the delivery-room; puerperal involution, lactation and the physiology of the newborn are taught in the lying-in wards and in the nursery.

The Third Trimester is devoted to the study of the pathology of pregnancy, labor and the puerperium. Throughout the entire session the student is drilled in obstetrical diagnosis, both by laboratory and by clinical methods, to prepare him for the clinical work in Obstetrics which begins May 1 of the Third Year. Recitations and demonstrations two hours a week during the year; laboratory work and clinical exercises (in sections of one third of the class) four hours a week for eleven weeks. Total 110 hours.

Professor Schwarz, Dr. Storrs, and Dr. Royston

2. GYNECOLOGY. RECITATIONS AND DEMONSTRATIONS. During the First Trimester of the Third Year the anatomy and physiology of the female pelvic organs are considered in connection with Obstetrics 1, and the foundation is laid for all courses in Obstetrics and Gynecology. One hour a week during the second and third trimesters. Total, 22 hours.

Dr. Crossen and Dr. Gellhorn

Fourth Year

3. OBSTETRICS. The course is arranged as follows:

(a) ATTENDANCE ON OBSTETRICAL CASES. The obstetrical service of the Washington University Hospital furnishes from six hundred to seven hundred cases a year (about 150 hospital cases and over 500 out-clinic cases). To each student is assigned a minimum of ten cases which he watches during pregnancy, attends personally during delivery and visits during the lying-in period; all work is done under supervision of instructors; the histories furnished by the students are discussed in clinical conference. Cases of special interest and those requiring major operations are delivered before sections of the class and do not count toward the minimum requirement of ten cases for each student. From May 1 of the Third Year to May 1 of the Fourth Year (time exclusive of the hours allotted to Obstetrics on the schedule of instruction).

Professor Schwarz, Dr. Schlossstein, Dr. Storrs, and Assistants

(b) OPERATIVE OBSTETRICS AND OBSTETRICAL THERAPEUTICS. The course consists of lectures and demonstrations and is supplemented by manikin work. Lectures and demonstrations one hour a week during the First and Second Trimester; manikin work in sections one hour a week for eleven weeks. Total 33 hours.

Professor Schwarz, Dr. Schlossstein and Dr. Vogt

(c) OBSTETRICAL WARD WORK. Sections composed of one sixth of the Fourth Year Class act as clinical clerks in the obstetrical division of the Washington University Hospital for a period of five and one half weeks. The members of these sections, under the guidance of instructors, participate in the entire work of the division; they attend patients in the dispensary; take histories and make examinations (including laboratory work); make ward rounds at stated hours;

perform minor operations under supervision and assist at major operations; attend clinical conferences and manikin practice. Sections of one sixth of the class, eight hours a week for five and one half weeks. Total 44 hours.

Professor Schwarz, Dr. Storrs and Assistants

4. GYNECOLOGY. No sharp line is drawn between clinical gynecology and clinical obstetrics. Much of the laboratory work in the obstetrical courses and many of the complications of the puerperium may be classed as gynecological while the work in the gynecological dispensary, especially the early diagnosis of pregnancy and the treatment of threatened or incomplete abortion, is largely obstetrical. The work in gynecology is subdivided as follows:

(a) WORK IN THE GYNECOLOGICAL DISPENSARY. Two hours a week for eleven weeks. Total 22 hours.

(b) GYNECOLOGICAL WARD WORK AND CLINICS. Four hours a week for five and one half weeks. Total 22 hours.

Professor Schwarz, Dr. Crossen, Dr. Gellhorn,
Dr. Taussig, and Assistants

5. *Graduate Courses in Obstetrics.* Physicians wishing to take a course in Obstetrics are advised to enter the Fourth Year course at the beginning of any trimester; the course will be supplemented by specially arranged laboratory work and recitations. A fee of \$50.00 will be charged.

6. *Special Investigation and Research.* Carefully kept records of several thousand labor cases, large clinical material, excellent laboratory facilities, a good department library, and a sufficient number of instructors enable the department to offer those who possess the necessary training an opportunity for original work under the guidance of instructors detailed for the purpose.

Pediatrics

George M. Tuttle, M.D.	. . .	Clinical Professor of Pediatrics
Borden S. Veeder, M.D.	. . .	Associate in Pediatrics
Adrien S. Bleyer, M.D.	. . .	Assistant in Pediatrics
Philip C. Jeans, M.D.	. . .	Assistant in Pediatrics
T. C. Hempelmann, M.D.	. . .	Assistant in Pediatrics
John Diven, M.D.	. . .	Assistant in Pediatrics

Third Year

1. PEDIATRICS. CLINICS AND LECTURES. The growth and development of the normal infant and child, the nutritional requirements of the infant and the disorders of nutrition, infectious diseases, and the differences in the manifestations of disease in the child and in the adult are considered in this course. The subjects are illustrated by the demonstration of patients in the St. Louis Children's Hospital. Total 66 hours.

Dr. Veeder

Fourth Year

2. PEDIATRICS. The course is subdivided as follows:

(a) WARD WORK. Ward rounds are made daily at 9 a. m. Cases are assigned for special study and the students are required to make physical and laboratory examinations. Each student spends at least one week in the contagious wards, and subsequently follows the cases admitted during his service in this ward. One half of one section of the Fourth Year Class is scheduled for daily ward work during two hours at the St. Louis Children's Hospital for a period of five and a half weeks. Total 66 hours.

Dr. Veeder and Assistants

(b) CLINICAL CONFERENCE. The diagnosis and treatment of cases assigned for special study are discussed. Two hours a week for five and one half weeks. Total 11 hours.

Dr. Tuttle

Preventive Medicine

(a) PREVENTIVE MEDICINE AND HYGIENE. Lectures upon the transmission and prevention of infectious diseases, ventilation, occupational diseases, and other subjects bearing upon the maintenance of health will be given once a week during two trimesters. Total 22 hours.

Dr. Bleyer

(b) PREVENTIVE MEDICINE. Lectures upon the transmission and prevention of certain diseases caused by bacteria will be given once a week during one trimester. Total 11 hours.

Professor Tiedemann

COURSES FOR PHYSICIANS

The Medical School is prepared to offer special courses for post-graduate students and has arranged a schedule of courses which will allow physicians to undertake post-graduate work in medicine, surgery or obstetrics, and to combine such study with various specialties or with laboratory work in bacteriology, serology, general, clinical, or surgical pathology, pathological chemistry or special physiology.

The session for post-graduate students will begin June 1, 1914, and end July 1, 1914.

The following courses are offered:

MEDICINE. A. INTERNAL MEDICINE. A practical course in the medical wards and dispensary of the Washington University Hospital. Symptomatology, diagnosis and treatment of disease will be studied. Especial attention will be paid to diseases of the circulation and the clinical bearing of the problems discussed in the course in physiology will be taken up as far as possible. Daily, from 9 to 11 a. m. Fee, \$35.00.

Professor Robinson and Dr. A. E. Taussig

MEDICINE. B. INTERNAL DISEASES WITH EXTERNAL MANIFESTATIONS. Lantern slide demonstrations of some of the internal diseases with important visible alterations of the body, in whole or in part. Pellagra, the goiters, giantism and dwarfism will be particularly considered. Once a week. Hour to be assigned.

Professor Dock

MEDICINE. C. CLINICAL CHEMISTRY AND MICROSCOPY. The course will include chemical and microscopic examinations of urine, blood, faeces (including intestinal parasites), gastric contents, sputum, and puncture fluids. The technique of the methods and diagnostic significance of the examinations will be emphasized. The course will not be given if less than three register. Three afternoons a week, from 2 to 5 p. m. Fee, \$25.00.

Professor Robinson and Dr. Lisser

DERMATOLOGY. Demonstrations of clinical material will be held from 2 to 3 p. m., daily. The student will have opportunity to study the various diseases of the skin and to learn the methods of demonstrating *Treponema pallida*, the value of the Wassermann reaction,

and the various modern methods of treating syphilis. Daily, from 2 to 4 p. m. Fee, \$25.00.

Professor Engman and Dr. Mook

SURGERY. A. GENERAL SURGERY. The course will be given in the wards, out-patient, and actinographic departments of the Washington University Hospital. Surgical conditions and treatment will be demonstrated by the study of cases which are at the time available. The schedule is as follows: 9 a. m. to 1 p. m., daily at the Washington University Hospital; 9 to 10 a. m., ward rounds; 10 a. m., operations three times a week; 10 a. m. to 1 p. m., out-patient department and laboratory demonstrations. Fee, \$35.00.

Professor Murphy, Dr. Sachs, Dr. Fisher, and Dr. Brooks

SURGERY. B. SURGICAL PATHOLOGY. In the afternoon session the gross and microscopical appearance of the specimens obtained at operations, the pathology of the more important surgical conditions as well as the process of repair in the various tissues will be studied. Mondays, Wednesdays and Fridays at the surgical laboratory, from 2 to 4.30 p. m. Fee, \$25.00.

Professor Murphy, Dr. Sachs, Dr. Fisher, and Dr. Brooks

GENITO-URINARY SURGERY. The course will be given in the out-patient department of the O'Fallon Dispensary. The material will illustrate the diagnosis and treatment of the usual genito-urinary conditions. Daily, from 2 to 4 p. m. Fee, \$25.00.

Dr. Caulk and Assistants

ORTHOPEDIC SURGERY. The course will be given at the Washington University Hospital and at the St. Louis Children's Hospital. The students assist in the routine work of the out-patient clinics and receive instruction in the diagnosis and treatment of orthopedic conditions. Daily, from 9 a. m. to 1 p. m. Fee, \$25.00.

Dr. Allison and Dr. O'Reilly

OPHTHALMOLOGY. The course will be given at the O'Fallon Dispensary and in the out-patient departments of the Washington University Hospital and the St. Louis Children's Hospital. On Saturday afternoons there will be a special demonstration of histological and pathological specimens. Daily, from 2 to 4 p. m. Fee, \$25.00.

Professor Ewing, Professor Alt, and Assistants

OTOLOGY. The course will be given at the O'Fallon Dispensary. Cases will be demonstrated and the clinical work will be supplemented by lectures and by laboratory demonstrations, which will include dissection on the cadaver. Daily, from 2 to 4 p. m. Fee, \$25.00.

Professor Shapleigh and Assistants

OBSTETRICS. The course aims to acquaint the practitioner with the modern methods of managing pregnancy, labor and the puerperium. It is composed of the following subdivisions:

Illustrated lectures and demonstrations on Mondays, Wednesdays and Fridays, from 9 to 10 a. m., by Professor Schwarz.

Practical work in the obstetrical dispensary and the obstetrical wards, daily, from 10 a. m. to 12 m., by Dr. Storrs and Dr. Newell.

Operative obstetrics and manikin work on Tuesdays, Thursdays and Saturdays, from 12 m. to 1 p. m., by Dr. Schlossstein and Dr. Vogt.

Laboratory work on Mondays, Wednesdays and Fridays, from 12 m. to 1 p. m., under Dr. Newell and Assistants.

Practitioners taking this course are permitted to attend cases of confinement in the Washington University Hospital and in the out-patient service; each member of the class will be given the chance to deliver, under supervision, ten or more cases and to assist in operative deliveries. Fee for course in obstetrics, \$35.00.

SERO-DIAGNOSIS OF PREGNANCY. A special laboratory course in the technique of Abderhalden's tests for sero-diagnosis of pregnancy and cancer will be given. Hours to be arranged. Fee \$25.00.

Professor Schwarz and Assistants

GYNECOLOGY. The course in gynecology is divided as follows:

Lectures and demonstrations. Tuesdays, Thursdays and Saturdays, from 9 to 10 a. m.

Dispensary work in gynecological examinations is conducted daily, from 3 to 5 p. m.

Gynecological Clinics will be conducted on Tuesdays, Thursdays and Saturdays, from 10 a. m. to 12 m. Fee, \$25.00.

Dr. Crossen, Dr. Gellhorn, and Dr. Taussig

PEDIATRICS. The course in Diseases of Infants and Children will be given at the St. Louis Children's Hospital. The course occupies the entire morning from 8.30 a. m. to 1 p. m.

Practical clinical work in the medical, infants' and contagious wards, and in the out-patient department will be given. Ward rounds daily from 8.30 to 10 a. m.; work in the General Clinic from 10 a. m. to 12 m., four days a week; and work in the Infant-feeding Clinic from 10 a. m. to 12 m., two days a week; under Dr. Veeder, Dr. Bleyer and Dr. Jeans.

Lectures on metabolism in infancy and infant-feeding, etc., will be given four hours a week, from 12 m. to 1 p. m., by Dr. Veeder and Dr. Jeans.

The technique of laboratory methods of particular importance in the diagnosis of the diseases of childhood will be considered. One hour a week, from 10 to 11 a. m.

Fee for course in Pediatrics, \$35.00.

PATHOLOGY. Instruction includes lectures, demonstrations and work in the laboratory. General pathology and pathological histology will be taught by lectures given in association with the study of the gross histological characters of the lesions concerned. Gross pathology is taught by fresh pathological tissues when available and by organs preserved as museum specimens. Daily, from 9 a. m. to 1 p. m. Fee, \$35.00.

Professor Opie and Dr. Smith

BACTERIOLOGY. The course is a general survey of the field of bacteriology. Methods of observing and staining bacteria and methods of bacteriological diagnosis are taught. Daily, except Saturdays, from 2 to 5 p. m. Fee, \$25.00.

Professor Tiedemann

MEDICAL BACTERIOLOGY AND SEROLOGY. Methods for the preparation of cultures, animal inoculation, agglutination, reactions and serum tests for syphilis, will be studied in the laboratory and explained by lectures. Daily from 2 to 5 p. m. Fee, \$25.00.

Dr. Thomas

PHYSIOLOGY OF THE CIRCULATION. A laboratory course, supplemented by demonstrations, designed to acquaint the practitioner with recent advances in the physiology of the circulation and with the principles underlying the newer physical methods for studying in man and animals normal and disturbed functions of the organs of the circulation. The subjects considered will include the properties of heart muscle, normal and disturbed sequence of the heart beat, including the more common types of cardiac irregularities; the

electrocardiogram; the action of the cardiac nerves; study of the events of the cardiac cycle with the aid of the venous pulse (polygraph); determination of blood pressure in animals and man; determination of the rate of transmission of the pulse wave; determination of velocity of blood flow in man; vaso-motor action in animals and man; the principles of photographic registration; etc. The class will work in groups of two, and to the groups will be assigned in rotation the apparatus needed for the performance of the experiments. Instruction will be largely individual. Three afternoons a week. The class will be limited to twelve and the course will not be given if less than four register.

Professor Erlanger, Mr. Gesell

PATHOLOGICAL CHEMISTRY. A study of the more exact methods for the quantitative chemical analysis of urine, faeces, blood and food materials. After acquiring the analytical technique, the methods are applied to the study of appropriate cases in the Medical Wards of the Hospital. Half days from June 1 to July 1.

Professor Shaffer with the
coöperation of Members of the
Department of Medicine.

GROUPING OF COURSES

In order that physicians who wish to take post-graduate instruction may select courses which will profitably fill the time available, the following groupings are suggested:

1. Mornings, Internal Medicine; afternoons, Clinical Pathology*..... Fee, \$50.00
2. Mornings, General Surgery; afternoons, Surgical Pathology*..... Fee, \$50.00
3. Mornings, Internal Medicine, General Surgery, Orthopedic Surgery or Pediatrics; afternoons, any one of the following specialties: Dermatology, Genito-Urinary Surgery, Ophthalmology or Otology..... Fee, \$50.00
4. Mornings and afternoons, Obstetrics and Gynecology..... Fee, \$50.00
5. Mornings, Pathology; afternoons, Bacteriology..... Fee, \$50.00
6. Mornings, Internal Medicine, General Surgery or Pediatrics; afternoons, Bacteriology, Medical Serology and Bacteriology or Physiology of the Circulation..... Fee, \$50.00

*Medical Serology and Bacteriology may be taken in addition.

Each post-graduate student is required to pay at the time of registration a registration fee of \$5.00 and to make a breakage deposit of \$10.00. The breakage deposit will be returned at the end of the course after charges for breakage, if any, have been subtracted.

In order that courses may begin on June 1, it is essential that those who wish to take them register by letter or in person on or before Monday, June 1, 1914.

WASHINGTON UNIVERSITY MEDICAL SCHOOL

1914-15

Schedule of First Year. First Trimester

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Embryology Laboratory Anatomy 2			Histology Laboratory Anatomy 3		
10 to 11						
11 to 12						
12 to 1	Organic Chemistry Chemistry 2	Organic Chemistry Chemistry 2	Organic Chemistry Chemistry 2			
2 to 3		Dissection Anatomy 6-7		Dissection Anatomy 6-7		
3 to 4						
4 to 5						

OPTIONAL COURSES

Conference in Anatomy: Anatomy 11—Monday 2-3 p. m.

Analytical Chemistry: Chemistry 1—Monday 3-5 p. m.; Wednesday 2-5 p. m. This course is required of those who do not present credit for Analytical Chemistry on admission.

WASHINGTON UNIVERSITY MEDICAL SCHOOL
Schedule of First Year. Second Trimester

1914-15

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Biological Chemistry Laboratory Chemistry 3	Neurology Laboratory Anatomy 5			Biological Chemistry Laboratory Chemistry 3	
10 to 11						
11 to 12						
12 to 1			Biological Chemistry Lecture Chemistry 3			
2 to 3		Dissection Anatomy 6-7		Dissection Anatomy 6-7		
3 to 4						
4 to 5						

OPTIONAL COURSES

Conference in Anatomy: Anatomy 11—Monday 2-3 p. m.
Conference in Osteology: Anatomy 12—Wednesday 2-3 p. m.

WASHINGTON UNIVERSITY MEDICAL SCHOOL
Schedule of First Year. Third Trimester

1914-15

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BULLETIN OF WASHINGTON UNIVERSITY.

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Biological Chemistry Laboratory Chemistry 3	Bacteriology Laboratory Pathology 1	Biological Chemistry Laboratory Chemistry 3	Bacteriology Laboratory Pathology 1	Biological Chemistry Lecture Chemistry 3	Bacteriology Laboratory Pathology 1
10 to 11						
11 to 12						
12 to 1	Physiology Lecture Physiology 2	Physiology Lecture Physiology 2		Biological Chemistry Lecture Chemistry 3	Physiology Lecture Physiology 2	Physiology Lecture Physiology 2
2 to 3	Bacteriology Lecture Pathology 1	Dissection Anatomy 6-7	Bacteriology Lecture Pathology 1	Dissection Anatomy 6-7		
3 to 4						
4 to 5						

OPTIONAL COURSE

Conference in Anatomy: Anatomy 11—Monday 3-4 p.m.

WASHINGTON UNIVERSITY MEDICAL SCHOOL

1914-15

Schedule of Second Year. First Trimester

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Pathology Laboratory Pathology 2	Topographical	Pathology Laboratory Pathology 2	Topographical	Pathology	Pathology Recitation Pathology 2
10 to 11		Anatomy		Anatomy	Laboratory	Gross Pathology Pathology 2
11 to 12		Anatomy 8		Anatomy 8	Pathology 2	Lecture on Infection and Immunity Pathology 3
12 to 1		Physiology Lecture Physiology 2		Physiology Lecture Physiology 2	Physiology Lecture Physiology 2	Physiology Lecture Physiology 2
2 to 3	Physiology Recitation Physiology 3	Physiology Laboratory Physiology 3	Lecture on Infection and Immunity Pathology 3	Physiology Laboratory Physiology 3		
3 to 4						
4 to 5						

OPTIONAL COURSE

Study of Serum Reactions: Pathology 7—Wednesday 3 to 5 p. m. for six weeks.

WASHINGTON UNIVERSITY MEDICAL SCHOOL

1914-15

Schedule of Second Year. Second Trimester

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Pathology Laboratory Pathology 2	Pathology Lecture Pathology 2	Pathology Laboratory Pathology 2	Pathology Lecture Pathology 2	Pathology	Pathology Lecture Pathology 2
10 to 11		Propaedeutic Clinic Medicine 2		Surgery Clinic Surgery 2	Laboratory	Gross
11 to 12		Medicine Recitation Medicine 2		History Taking Medicine 2	Pathology 2	Pathology Pathology 2
12 to 1		Physiology Lecture Physiology 2		Physiology Lecture Physiology 2		Physiology Lecture Physiology 2
2 to 3	Physical	Surgical		Surgical	Physical	
	Diagnosis	Technique		Technique	Diagnosis	
3 to 4	Medicine 1	Surgery 1		Surgery 1	Medicine 1	
4 to 5	Medicine Recitation Medicine 2				Medicine Recitation Medicine 2	

WASHINGTON UNIVERSITY MEDICAL SCHOOL

1914-15

Schedule of Second Year. Third Trimester

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Obstetrics Recitation Obstetrics 1	Pediatrics Clinical Conference Pediatrics 1	Therapeutics Medicine 3	Pediatrics Clinical Conference Pediatrics 1	Applied Anatomy Anatomy 9	Applied Anatomy Anatomy 9
10 to 11	Group A Medicine 6	Propaedeutic Clinic Medicine 6	Group A Medicine 6	Clinical Pathological Conference Medicine 6	Group A Medicine 6	Gross Pathology Pathology 2
11 to 12	Group B Surgery 2	Physical Diagnosis Medicine 4	Group B Surgery 2	Physical Diagnosis Medicine 4	Group B Surgery 2	
	Group C Obstetrics 1		Group C Medicine 9		Group C Obstetrics 1	
12 to 1	Surgery Recitation Surgery 2	Surgery Clinic Surgery 2	Medicine Recitation Medicine 6	Surgery Conference Surgery 2	Therapeutics Medicine 3	Pharmacology Lecture Pharmacology 1
2 to 3	Pharmacology Lecture Pharmacology 1	Pharmacology	Pharmacology Lecture Pharmacology 1	Pharmacology	Pharmacology Lecture Pharmacology 1	
3 to 4	Surgical	Laboratory		Laboratory		
	Pathology	Pharmacology 1		Pharmacology 1		
4 to 5	Surgery 3					

WASHINGTON UNIVERSITY MEDICAL SCHOOL

1914-15

Schedule of Third Year. First Trimester

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Obstetrics Lecture Obstetrics 1	Pediatrics Clinical Conference Pediatrics 1	Obstetrics Lecture Obstetrics 1	Pediatrics Clinical Conference Pediatrics 1	Applied Anatomy Anatomy 9	Applied Anatomy Anatomy 9
10 to 11	Group A. Medicine 6	Propaedeutic Clinic, Medicine 6	Group A. Medicine 6	Clinical Pathologi- cal Conference Medicine 6	Group A. Medicine 6	Group A. Medicine 6
11 to 12	Group B. Surgery 2	Physical Diagnosis Medicine 4	Group B. Surgery 2	Physical Diagnosis Medicine 4	Group B. Surgery 2	Group B. Surgery 2
	Group C. Obstetrics 1				Group C. Obstetrics 1	
12 to 1	Surgery Recitation Surgery 2	Surgery Clinic Surgery 2	Medicine Recitation Medicine 6	Surgery Conference Surgery 2	Medicine Recitation Medicine 6	Preventive Medicine
2 to 3	Surgical	Group C. Physical Diagnosis Pediatrics 1	Clinical		Clinical	
	Pathology		Microscopy		Microscopy	
3 to 4	Surgery 3		Medicine 5		Medicine 5	
4 to 5					Dietetics Medicine 8	

WASHINGTON UNIVERSITY MEDICAL SCHOOL

1914-15

Schedule of Third Year. Second Trimester

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Obstetrics Lecture Obstetrics 1	Pediatrics Clinical Conference Pediatrics 1	Obstetrics Lecture Obstetrics 1	Pediatrics Clinical Conference Pediatrics 1	Gynecology Obstetrics 2	Neurology Medicine 9
10 to 11	Group B. Medicine 6. Group C. Surgery 2	Propaedeutic Clinic, Medicine 7	Group B. Medicine 6 Group C. Surgery 2	Clinical Pathologi- cal Conference Medicine 6	Group B. Medicine 6 Group C. Surgery 2 Group A. Obstetrics 1	Group B. Medicine 6 Group C. Surgery 2
11 to 12	Group A. Obstetrics 1	Physical Diagnosis Medicine 4		Physical Diagnosis Medicine 4		
12 to 1	Surgery Recitation Surgery 2	Surgery Clinic Surgery 2	Medicine Recitation Medicine 6	Surgery Conference Surgery 2	Medicine Recitation Medicine 6	Preventive Medicine
2 to 3	Surgical Pathology	Group A. Physical Diagnosis Pediatrics 1	Clinical Microscopy	Neurological Pathology	Clinical Microscopy	
3 to 4	Surgery 3		Medicine 5	Medicine 9	Medicine 5	
4 to 5						

WASHINGTON UNIVERSITY MEDICAL SCHOOL

1914-15

Schedule of Third Year. Third Trimester

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 10	Obstetrics Lecture Obstetrics 1	Pediatrics Clinical Conference Pediatrics 1	Obstetrics Lecture Obstetrics 1	Pediatrics Clinical Conference Pediatrics 1	Gynecology Obstetrics 2	Neurology Medicine 9
10 to 11	Group C. Medicine 6	Propaedeutic Clinic Medicine 6	Group C Medicine 6	Clinical Pathological Conference Medicine 6	Group C. Medicine 6	Group C. Medicine 6
11 to 12	Group A. Surgery 2	Physical Diagnosis Medicine 4	Group A. Surgery 2	Physical Diagnosis Medicine 4	Group A. Surgery 2	Group A. Surgery 2
	Group B. Obstetrics 1				Group B. Obstetrics 1	
12 to 1	Surgery Recitation Surgery 2	Surgery Clinic Surgery 2	Medicine Recitation Medicine 6	Surgery Conference Surgery 2	Medicine Recitation Medicine 6	Preventive Medicine
2 to 3	Surgical	Group B. Physical Diagnosis	Dermatology 1 Lecture		Operative	
	Pathology	Pediatrics 1	Ophthalmology 1 Lecture		Surgery	
3 to 4	Surgery 3				Surgery 2	
4 to 5		Laryngology Lecture		Genito-Urinary Lecture Surgery 5		

WASHINGTON UNIVERSITY MEDICAL SCHOOL

1914-15

Schedule of Fourth Year. Group A., First Trimester; Group B., Second Trimester; Group C., Third Trimester.

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 11	Medicine 10. Ward Work, Barnes Hospital Medicine 11. Neurological Ward and Out Patient Work. Medicine 12. Psychiatry.					
11 to 12	Dermatology O. P. D.		Dermatology O. P. D.		Dermatology O. P. D.	
12 to 1	Neurology Medicine 11	Surgery Clinic Surgery 4		Medicine Clinic Medicine 10	Obstetrics Lecture Obstetrics 3 I and II Trimester	Medicine Clinic Medicine 10
2 to 3	Ward Work Barnes Hospital Medicine 10		Ward Work Barnes Hospital Medicine 10		Ward Work Barnes Hospital Medicine 10	
3 to 4						
4 to 5	Surgery Lecture Surgery 4	Medical Jurisprudence I and II Trimester			Ophthalmological Pathology II and III Trimester	

WASHINGTON UNIVERSITY MEDICAL SCHOOL

1914-15

Schedule of Fourth Year. Group B., First Trimester; Group C., Second Trimester; Group A., Third Trimester.

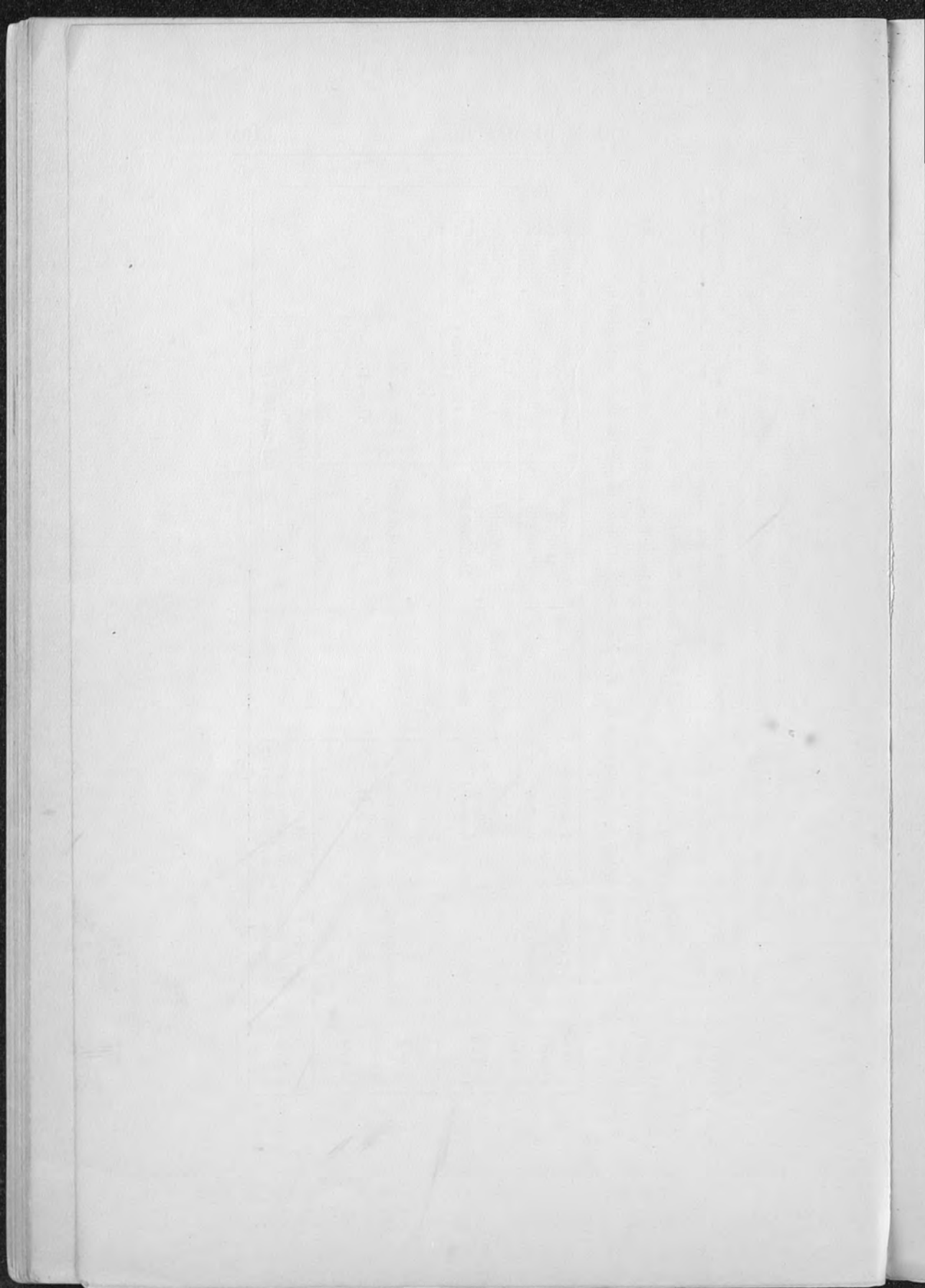
HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 12	<p>Surgery 4. Ward Work, Barnes or St. Louis Children's Hospital.</p> <p>Surgery 6. Orthopedic Surgery, Barnes or St. Louis Children's Hospital.</p>					
12 to 1		Surgery Clinic Surgery 4		Medicine Clinic Medicine 10	Obstetrics Lecture Obstetrics 3 I and II Trimester	Medicine Clinic Medicine 10
2 to 3	Otolaryngology O. P. D.			Otolaryngology O. P. D.		
3 to 4						
4 to 5	Surgery Lecture Surgery 4	Medical Jurisprudence I and II Trimester			Ophthalmological Pathology II and III Trimester	

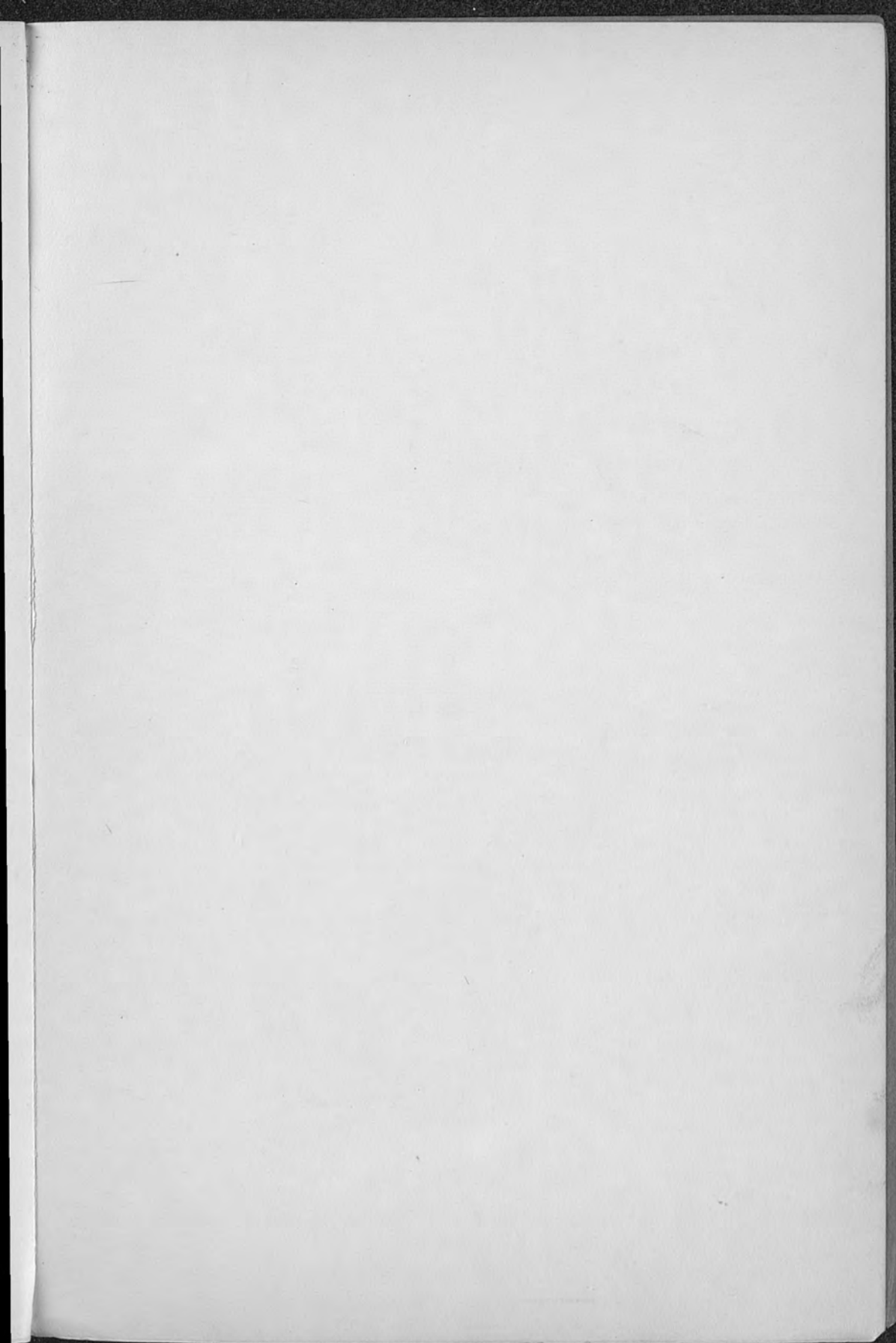
WASHINGTON UNIVERSITY MEDICAL SCHOOL

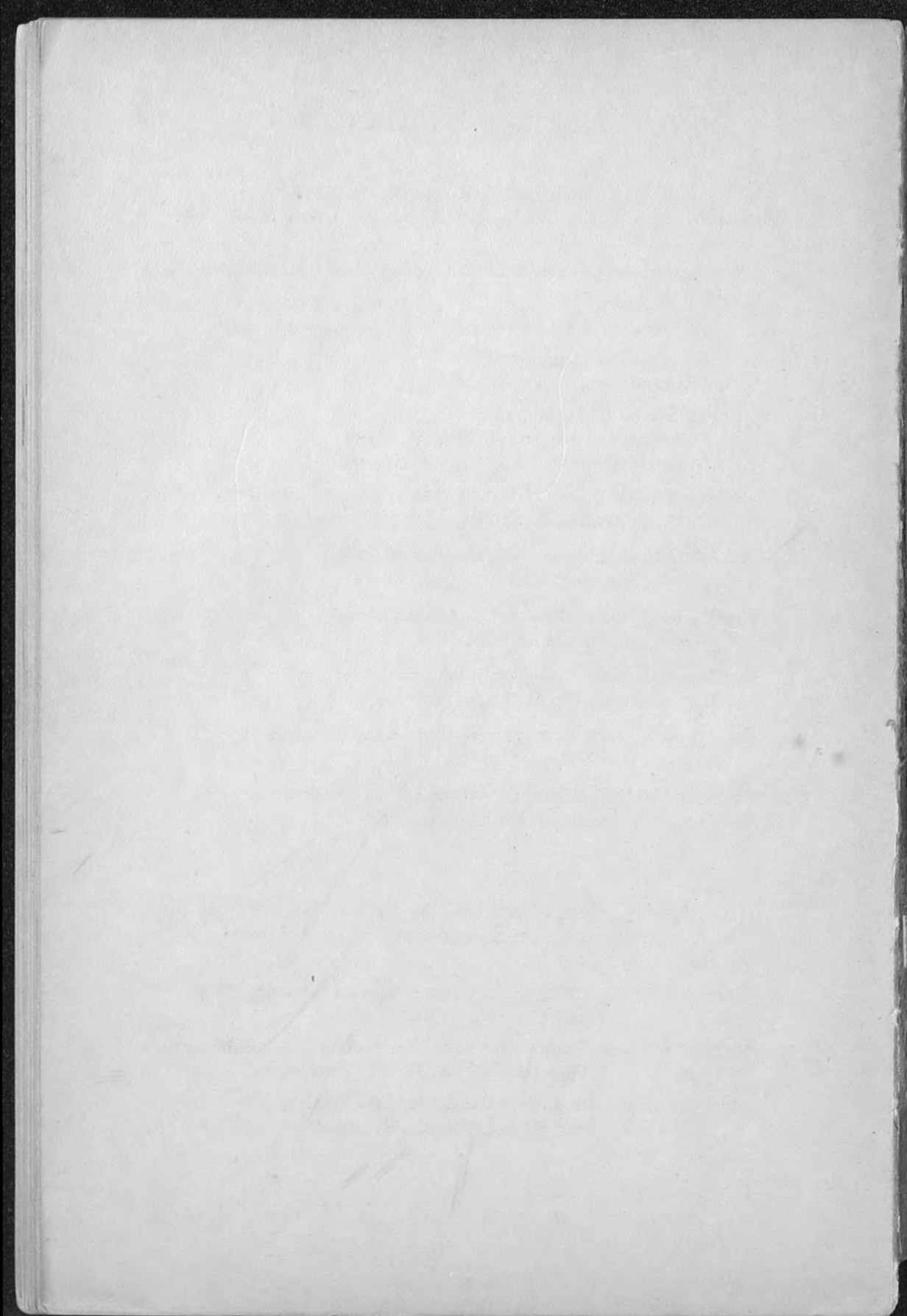
1914-15

Schedule of Fourth Year. Group C., First Trimester; Group A., Second Trimester; Group B., Third Trimester.

HOURS	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
9 to 11	<p>Section 1. Obstetrics 3 and 4. Ward Work, Barnes Hospital: 9-12 daily.</p> <p>Sections 2. Pediatrics 2, Ward Work, St. Louis Children's Hospital: 9-11 daily—except Wednesday 9-12.</p> <p>Sections change at the middle of the trimester. Genito-Urinary Surgery is taken by Section 2.</p>					
11 to 12	Genito-Urinary O. P. D. Surgery 5	Genito-Urinary O. P. D. Surgery 5		Genito-Urinary O. P. D. Surgery 5	Genito-Urinary O. P. D. Surgery 5	Genito-Urinary O. P. D. Surgery 5
12 to 1		Surgery Clinic Surgery 4	Genito-Urinary O. P. D. Surgery 5	Medicine Clinic Medicine 10	Obstetrics Lecture Obstetrics 3 I and II Trimester	Medicine Clinic Medicine 10
2 to 3	Ophthalmology	Laryngology		Ophthalmology	Laryngology	
3 to 4	O. P. D.	O. P. D.		O. P. D.	O. P. D.	
4 to 5	Surgery Lecture Surgery 4	Medical Jurisprudence I and II Trimester			Ophthalmological Pathology II and III Trimester	







Washington University

David F. Houston,* A.M., LL.D., Chancellor
Frederic A. Hall, A.M., Litt.D., L.H.D., LL.D., Acting Chancellor

- I The Department of Arts and Sciences (Skinker road and Lindell boulevard)
 - A The College
George O. James, Ph.D., Dean
 - B The School of Engineering
Alexander S. Langsdorf, M.M.E., Dean
 - C The School of Architecture
Alexander S. Langsdorf, M.M.E., Dean
John B. Robinson, Professor in Charge
- II The Henry Shaw School of Botany (Shenandoah and Tower Grove avenues)
George T. Moore, Ph.D., Engelmann Professor of Botany
- III The Law School (Skinker road and Lindell boulevard)
William S. Curtis, LL.D., Dean
- IV The Medical School (Eighteenth and Locust streets)
Eugene L. Opie, M.D., Dean
- V The Dental School (Twenty-ninth and Locust streets)
John H. Kennerly, M.D., D.D.S., Dean
- VI The School of Fine Arts (Skinker road and Lindell boulevard)
Edmund H. Wuerpel, Director
- VII The School of Social Economy (Nineteenth and Locust streets)
George B. Mangold, Ph.D., Director

The following schools, each with its separate and distinct corps of instructors, are also conducted under the charter of the University:

- 1 Smith Academy—for boys (Von Versen avenue and Windermere way)
Frank Hamsher, A.B., Principal [way]
- 2 Manual Training School—for boys (Von Versen avenue and Windermere way)
William R. Vickroy, Ph.B., Principal
- 3 Mary Institute—for girls (Waterman and Lake avenues)
Edmund H. Sears, A.M., Principal

*On leave of absence.

